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MODERN PHILOSOPHY

THE DEVELOPMENT OF

MODERN PHILOSOPHY

BY

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PREFACE.

THIS history of Modern Philosophy was first published in 1903, along with a number of occasional addresses and some chapters on the Principles of Psychology, which formed the second volume of the work. The first volume, containing the whole of the history, was afterwards issued separately; but both it and the larger work of more miscellaneous contents have now been out of print for several years. A continued demand for the book has led to the publication of this new impression, in which nothing has been changed apart from the correction of a few errata.

It may be well to remind readers that the work was not written out by the author himself. It consists of lectures given in the University of Glasgow in 1897-98 and the following year, supplemented, in one or two places only, by extracts from other courses. Long practice had made Professor Adamson a master of the art of oral exposition and criticism; and he spoke slowly, so that a rapid writer could take down almost every word. The material preserved in this way has been brought into book form by the editor, who has also added a number of references and quotations in the footnotes in the hope of making the book more useful to students of philosophy. Editorial footnotes are distinguished by square brackets.

W. R. S.

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THE
DEVELOPMENT OF MODERN PHILOSOPHY.

INTRODUCTION.

THE impulse which leads us to study the history of philosophy is not mere curiosity. No doubt it is true that he who remains ignorant of the past is for ever a child; but it is not only to accumulate knowledge of what has taken place that one follows the course of past speculation. The history of philosophy is 'philosophy itself taking its time.'[1] When we approach the interests of our own age and try to view them more closely, we find ourselves reading what has been already written in larger characters in the history of previous thought. The distinctions we draw, as we gradually work out our conceptions, have all their places as stages in the development of previous speculation. We get a fresher and fuller view of what constitutes the peculiarity and significance of these distinctions when we treat them on the larger scale on which they were first presented. Moreover, if philosophy is just the systematic expression of our reflexion on the nature and connectedness of experience, it is impossible to

[1] Ferrier, [Lectures on Greek Philosophy, vol. i. p. 2].

divorce it from its past history. Just as the reflective plans of the mature individual are coloured by his previous less reflective history, just as the clear self-consciousness of mature thought depends on the less developed primitive consciousness, so with philosophy as a whole: for it might not unfairly be described as the self-consciousness of human reason at large. It is impossible to understand its nature, the character of its problems, the value of the ideas it brings to bear on experience, without help from the history of the way in which reason at large has developed.

From this point of view continuity would naturally appear to be the special characteristic of the growth of philosophy. But such continuity is not to be taken too literally. We misunderstand the conception of uniformity if we suppose it to imply that, wherever we discover change, it shall always exhibit the same features of temporal order. As in the case of the action of natural agents traced by the geologist, as in the case of the development of organic beings, so also in the history of thought: it is true in general only that the sequence of changes is gradual and uniform. There are periods in which the changes are so intense and rapid as to give a wholly exceptional appearance to the mode of origin of the new phenomena.

In such a period Modern Philosophy took its rise. The seventeenth century presents what looks at first sight like a total change of fundamental conceptions in application to experience. We find no difficulty as we retrace the stages of human thinking from the present time to the seventeenth century. The conceptions employed are so similar in nature that the progress seems continuous here if anywhere. But, when we go farther back, we find ourselves among ideas which seem strange, alien to our modern modes of thinking, and almost preventing us from connecting in a regular and perfect manner the philosophical reflexions of the modern

world with those of the ancient. On one side, certainly, the whole reflective effort of the middle ages seems like a needlessly interrupting episode. We may connect the fundamental thoughts of the seventeenth century more easily with those of Plato and Aristotle than with those of the representative exponents of the medieval or scholastic philosophy.

We require, however, to consider another side of the question, which will make the real connexion clearer. No philosophy is ever able to do more than read significance and meaning into the mass of experience that may be possessed. Reflexion can be fruitfully exercised only on the concrete material supplied to it. The most retrograde periods of philosophical thinking have been those in which an unnatural separation was made between the general conceptions of man's reason, his place and destiny in the scheme of things, and the concrete material presented in his ordinary experience of nature and man. It was the misfortune of the middle ages that, in their case, this separation did occur. It was a result of their historical position. The peculiarity of the middle ages was their loss of the inheritance of acquired scientific knowledge which the Greeks had possessed and their acquisition of the great chaotic mass of speculation that had grown up with Christianity. Further, into the lapse of the middle ages were suddenly introduced the results of Greek thought, which supplied the scholastic thinking with a body of general ideas more fully elaborated than anything they had before, and yet developed in connexion with a concrete experience of a very imperfect kind. Even the Aristotelian metaphysic, though important, keeps as its standard of reference for reality a picture of nature essentially incomplete and ill-founded. Its fundamental ideas, by reason of their generality, were capable of application, and were applied by the medieval thinkers, to experience other than that from which they had first arisen. But

such application is strictly unnatural. A philosophical idea is only fruitful and effective when it springs from matured careful reflexion on the appropriate concrete material.

From this point of view it evidently becomes of the greatest importance to keep constantly in mind the intimate connexion between philosophical reflexion and the more or less elaborate knowledge of experience called science of nature and of man. And it is the essential peculiarity of the seventeenth century that in it we encounter simultaneously a fundamental change in the elaborated knowledge of nature and a new method or way of co-ordinating the general ideas which form the substance of philosophy in the strict sense. It is altogether impossible to understand and appreciate the Cartesian movement of the seventeenth century if we sever it from the contemporary changes in scientific knowledge, ideas, and methods.

In the seventeenth century, as a preliminary to what is called specially its philosophy, there fall to be considered, in outline, the changes in the general aspect of experience which furnished the appropriate material, and perhaps the special impulse, for the new philosophical methods. It need hardly appear surprising to us that there should be at that period so close a relation between science of nature and philosophy. In our own time, as we ought to be aware, nothing has more powerfully affected philosophical ideas than the new aspect of experience indicated by the term Development. The part played in our time by researches into the development of living organisms was played in the seventeenth century by researches of a more abstract character into mechanics, mathematics, and astronomy. It is hard to realise how totally different the conception of nature with which Aristotle, for example, worked is, on its mechanical side, from that of modern philosophy. On the larger scale, perhaps, the difference is more easily understood. We are

all aware of the fundamental change in human conceptions of the physical universe involved in the establishment of the Copernican system of astronomy. So familiar is that to us that we hardly realise the altogether peculiar representation of the cosmical system to which all the speculations of the Greek philosophers had reference. The Copernican system has long ago completed the stages through which most large conceptions have to pass. It was at first regarded as altogether inimical to and destructive of the Christian faith; then it was received as at least compatible therewith; and now it is claimed to be involved in and necessary for that faith. In the seventeenth century it had barely reached the second stage, and a certain timidity of expression in respect to it is to be encountered in Descartes and his immediate followers.

Not less important than the change in this broader aspect of the physical universe, and perhaps more fruitful, was the modification of scientific ideas involved in the researches of Galileo on the laws of motion. In many respects Galileo deserves to be ranked with Descartes as inaugurating modern philosophy. Not only did he first introduce the fundamental ideas on which all later mechanical theory depends, but he had a broad and comprehensive conception of the general method of research. Like most thinkers of that age, he entertained and expressed small respect for Logic as a theory of method; and that justly, for logic, as then expounded, involved throughout the ill-founded representation of nature peculiar to the Aristotelian doctrine. In opposition to the syllogism Galileo urged the claims of the combined methods of analysis and synthesis. All investigation, according to him, proceeded, first, by reducing the concrete and involved facts of nature to their simplest components, and, secondly, by determining, from the general laws of each of these simple components, the law of any compound of them. Nothing is

gained by the words 'analysis' or 'synthesis'; nor is any thinker to be credited with a new idea of method because he introduces the correlative notions of simple and compound. The value of his contribution will wholly depend on the more concrete consideration, what he takes these simple components to be. In the case of Galileo it is obvious that by 'simple' facts of nature he meant bodies stripped of all properties other than the mechanical; and it is indeed part of his view that all properties of physical bodies, except shape position and movement, are subjective. The general laws of these simple components, in his acceptation, meant the fundamental principles of mechanics; and therein he was the first to signalise the principle of inertia and the principle, as we may call it, of the composition of movements.

These mechanical principles determined in Galileo's mind the total aspect of physical nature; and his determination of them first furnished a definite foundation for any philosophical speculation regarding nature. Such philosophical speculation we shall find constitutes by far the more important element in Cartesianism.

PART I.

DESCARTES AND INTELLECTUALISM.

CHAPTER I.

DESCARTES.

With regard to Descartes himself, the following are the requisite dates. He was born in 1596 and died in 1650. His works, published in his lifetime, include (1) those of a systematic kind: the Essais Philosophiques (containing the Discours de la Méthode) in 1637, Meditationes de Prima Philosophia in 1641, Principia Philosophiæ in 1644, Les Passions de l'Âme in 1650; (2) controversial writings: Epistola ad Voëtium (1643), and Notæ in Programma Quoddam (1648). Descartes left a considerable quantity of unpublished material, of which, however, only a small part has been recovered and made public. The more important of these writings are the following: the work called Le Monde, first printed fairly completely in 1677, less perfectly in 1664. Of this treatise it is to be noted that it represents the first sketch of Descartes' physical system, and that he suppressed it, or withheld it from publication, in consequence of his learning of the persecution that followed Galileo's

utterances regarding the cosmical system.[1] Also, forming really part of this treatise, a little Tractatus de Homine (1664). More important, in a general way, is the unfinished work entitled Regulæ ad Directionem Ingenii, which, with a little appendix, the Inquisitio Veritatis per lumen naturale, was published, in his Opuscula Posthuma, in 1701. Of this important tract on method—the Regulæ—it is to be said that it almost certainly represents the first conception[2] in Descartes' mind of the comprehensive method he was afterwards to apply in general philosophy, and that its nature confirms the view one is otherwise led to take of the method, as essentially a generalisation of mathematics. With the Regulæ I purpose beginning the consideration of Descartes' method.

I. Preliminary Investigation.

1. *Descartes' Method.*

Throughout the Regulæ Descartes is to be found insisting that what constitutes the excellence of mathematical demonstration is not dependent on any peculiarity in the matter with which it deals.[3] Mathematics has pre-eminence only in that its material lends itself most easily to the demands of strict method; for if mathematical demonstration be considered, not with a view to the special problems it undertakes to solve, but with a view to determine the conditions on which the certainty and cogency of mathematical reasoning depend, the answer given will be in per-

[1] [See Discours de la méthode, part vi.]

[2] [The composition of the Regulæ is assigned by Millet (Histoire de Descartes avant 1637) to a date not later than 1629. With him Natorp (Descartes' Erkenntnisstheorie, pp. 164-5, Archiv für Gesch. d. Phil., x. 11) and Boyce Gibson (Mind, N.S., vii. 148) agree.]

[3] [Cf. Regulæ, in Œuvres de Descartes, ed. Cousin, xi. 208 f., 218, 298; Discours de la méthode, pt. ii.]

fectly general terms. A mathematical demonstration is complete when the conclusion advanced can be clearly and distinctly seen to follow, by whatsoever number of intermediate steps, from data so simple and so evident that they cannot be questioned. Wherever data so simple and certain are to be found, and it is possible to proceed in strict order from these simple data, with the same kind of certainty regarding the connexion between the successive steps as we have regarding the data themselves, then we shall have knowledge as adequate as is exemplified in mathematical science. The great characteristics of method are therefore simplicity, clearness, and distinctness in the data, strict sequence in the progress from these, and, further, completeness in the survey of the data required in each case.[1]

Undoubtedly Descartes was led to this generalisation by reflexion on the important modification he was himself introducing into the treatment of geometrical problems. It appeared to him that geometry in his time suffered from lack of system, of generality.[2] Special problems were attacked and, so far as solved, were solved by special devices or methods. He thought it possible and necessary that there should be, with respect to all the complicated problems of geometry, some general method of treatment. Something analogous to this he found in the well-known geometrical analysis of the ancients, the regressive process by which, assuming the truth of a complex theorem, assuming the solution of a problem, we work back step by step, in due order, to the ultimate data from which of necessity that solution would follow. Such data, of course, must themselves be already determined, be clearly and distinctly known. It is to be added that Descartes' generalised method consisted essentially in a reduction of geometrical to arithmetical ratios, and that in general arithmetic, the calculus of pure quantities,

[1] [Regulæ, rules iii.-vii.] [2] [Œuvres, xi. 219-224.]

he found the best exemplification of that order and distinctness and completeness which he desired in perfected knowledge.

The method, then, in its general features, required, in the first place, that the data should be apprehended so that doubt of them is impossible. To the process of mind whereby such apprehension came about Descartes gave, in the Regulæ, the name 'Intuition.'[1] It is essentially the same process of mind as that to which later he gave the name Understanding;[2] and it is the peculiarity of Understanding, in Descartes' acceptation of that term, that it grasps directly a necessary connexion holding good between the contents of two ideas.[3] Here it is to be noted that there did not occur to Descartes' mind the question, which in the Critical Philosophy became for the first time fundamental in the theory of knowledge, 'On what depends the possibility of recognising a necessary connexion between contents different from one another?' It would be wholly impossible to discover, from Descartes' treatment of Understanding, in what way he would have dealt with the distinction expressed in Kant's nomenclature as the distinction between Analytical and Synthetical judgments. It is in a totally different connexion that there comes to the front in Descartes' speculations a problem fundamentally the same as that indicated in Kant's distinction. When Descartes has to face the problem of existence, when the question concerns not merely the relation between the contents of two ideas but the justification for our conviction or assumption that some-

[1] [Regulæ, under rule iii.; Œuvres, xi. 212.]

[2] [Cf. Meditationes, pt. iv.; tr. Veitch, 6th ed., p. 136.]

[3] Descartes always represents the primary facts in his scheme of knowledge in the form of propositions or relations. That which is clearly and distinctly apprehended is not (as we should put it) the content of a single idea or perception but the relation of two contents. [*E.g.*, the 'cogito' and the axioms quoted below; cf. Principia philosophiæ, pref.; Veitch, pp. 179-180.]

thing exists corresponding to our ideas, then he is confronted with the same problem that lies at the foundation of Kant's distinction.

The conjecture is perhaps too hypothetical that Descartes, after having determined the broad outlines of a perfectly demonstrative method, proceeded then to apply it to the sum total of experience, and that it was in consequence of the obvious divergence between our experience and the requirements of the method that he was led to insist on the necessity of first calling in question all received opinions, of provisionally doubting, until we should be able to reach some simple datum about which no doubt could be entertained. Such a reflexion would undoubtedly involve just that distinction to which I have been alluding, that between the clear and distinct and necessary connexion among the contents of ideas and the problem of real concrete existence: for, if this distinction were apprehended at all, even obscurely, it would determine the kind of fundamental datum for which we are in search. The datum must be one which enables a determination of real concrete existence to be made with as much clearness distinctness and necessity as is found in the fundamental data of numerical calculation.

Assuming for the moment that some such reflexion was present in Descartes' mind, we can easily understand the significance of the datum which, it appeared to him, constituted a perfectly sure foundation for our speculation.

'Cogito ergo sum'[1] is the formula enunciating an apprehension, an intuition, an act of the understanding, in which are connected, as of necessity, Consciousness or Knowledge of Self and Existence of Self. No doubt Descartes at times appears to lay stress on the interpretation of this formula as merely the identification of consciousness with existence. 'I am conscious or thinking' would, on this interpretation, pre-

[1] [Discours de la méthode, iv.; Medit., ii.]

sent itself as an equivalent for the original formula. But such identification disguises the real character of the datum. In it there is, and there is required for Descartes' purposes, a connexion between the content of that idea which I must form of myself and the fact of existence. Even if my existence be only that of a conscious or thinking being, I become aware of that existence in and through the apprehension of the necessary connexion expressed in the formula. The connecting link in the formula, then, the 'ergo,' although it does not signify, as Descartes was careful to point out, that the proposition is the conclusion of an argument, does indicate the necessary interdependence for thought or understanding of two distinguishable elements: (1) the idea of self as conscious, and (2) the existence of self.

In the datum, then, as we should express it, there is given a means of connecting human thought or reason with existence, and that not problematically but with necessary evidence, the evidence of necessity. It is impossible that he who doubts or is conscious should not be. He exists, that is, only in so far as he is conscious. It is only through being conscious that he has a place in the realm of existence at all; but his being conscious assures him beyond the possibility of doubt that he is thus part of the realm of existence. Wherever we find, then, in understanding, in what is intuitively apprehended, as clear and evident and indubitable a connexion as is contained in the fundamental datum, we shall accept it as so far an indication of truth, and of truth respecting real existence. (I have put in the qualification 'so far,' which Descartes is not ready to introduce.)

It has always been felt that difficulty arises when the transition has to be made from this simple datum to the more detailed knowledge of the universe. In order to proceed further from the fundamental position gained, Descartes

places alongside of the datum a rather indefinite number of general propositions or axioms which, as we may put it, shine by their own light, but constitute determinations of real existence only in so far as they can be connected with the fundamental datum. These common axioms he repeatedly assigns to the natural light, the *lumen naturale*.[1] At times he speaks of this natural light as just the spontaneous tendency which every normal mind has towards certain ideas or judgments;[2] but it is evident that the importance of the axioms cannot depend on their connexion with a spontaneous tendency, not even if that tendency were universal. If the expressions of any such tendency are to be received as data with which we may operate, the ground must be the perfect self-evidence of what is contained in the expressions.[3] The axioms must be ultimate propositions, connexions of distinct contents of ideas, which we apprehend with as much clearness and distinctness and with as stringent necessity as we apprehend the 'Cogito ergo sum'; and it must be said that Descartes makes no effort to indicate any other relation between the axioms of this kind and the Cogito than the merely external relation that they all possess self-evidence.

Of such axioms Descartes only once puts forward a summary or list. In the reply to the second set of objections to the 'Meditations,' he undertakes to satisfy the demand of a critic who had asked that Descartes should put in mathematical form the material he claimed to have; and he proceeds to expound, after the fashion of mathematical science, that knowledge which, according to his view, possessed the same characteristics of order, system, and

[1] [Regulæ, under rule xii.; Œuvres, xi. 271-2; Medit., iii.; Veitch, p. 121; Prin. phil., i. 11, 18.]

[2] [Œuvres, xi. 221, under rule iv., is perhaps an example of this mode of expression.]

[3] [Medit., iii.; Veitch, p. 119.]

necessity as mathematical truth.[1] A few of these axioms will illustrate the general character of the whole. Axiom III runs thus: 'A thing, or any perfection (that is, quality) of a thing, actually existing cannot have as cause of its existence nothing or a thing which does not exist.' Axiom IV. runs: 'All the reality or perfection which is in a thing is to be found also formally or eminently in its first and complete cause.' 'Formal' and 'eminent' have this significance in common: they refer to real existence as contrasted with thought, conceived existence. They are distinct from one another only in degree, 'formal' indicating that the reality of the cause is just equal to the reality of the effect, 'eminent' that the reality of the cause is in excess of the reality of the effect. (The distinction is useful only for the special case of the Divine existence.) Axiom V. follows from the preceding, and is that 'the objective reality of our ideas requires a cause in which this very reality is contained not merely objectively but formally or eminently.' The discovery of these axioms is the most important property assigned to the natural light.

What, then, do we mean by the 'objective reality of our ideas'? By this Descartes seems to have meant as nearly as possible what we describe in our own terminology as the content of the ideas. 'Content of the ideas' is a term, again, which requires for its exact comprehension the familiar distinction between the act of thinking and what is thought in and through that act. The scholastic writers, from whom Descartes inherits this term 'objective reality of ideas,' were in the habit of explaining it, in a manner which Descartes follows, as being the existence of the thing in so far as it is in the mind or is thought—a very dangerous explanation. Descartes' fifth axiom, then, is to this effect, that, as explanation of content in general or of

[1] [Œuvres, i. 451 ff., especially p. 458; Veitch, p. 267 ff., especially p. 270.]

any specific content, there is required a corresponding thing or entity, existing apart from the act of thought, and having in actual existence the qualities, characteristics, or features which appear in the content of the idea. All this, be it noted, is ascribed to the *lumen naturale*, and received by Descartes as self-evident. This axiom is the foundation of all Descartes' future progress. He makes it appear as a consequence of axioms III. and IV., which look very simple and harmless. But we must ask the question, Can this 'content of an idea' be regarded as an existing thing? If it cannot, are we justified in connecting axiom V. with axioms III. and IV.? The terms in axiom V. are different from, in another sphere of existence than, those in axioms III. and IV.

It is mainly with the aid of this axiom respecting the relation between thought and reality that Descartes proceeds to effect an advance from the isolated datum 'Cogito ergo sum.' It might perhaps be argued that even in that primitive datum the axiom is to some extent involved; that without a secret reference to it there would not be possible the connexion implied in that datum between the content of my experience of thinking and the real existence of the thinking being. Perhaps, however, it will always be impossible to clear up the obscurity which attaches to Descartes' use of the term 'Cogito.'

The axiom enables Descartes at once to utilise for the determination of existence whatever he finds to be contained in ideas actually possessed. Divisions of such ideas on various bases are put forward by Descartes; the only one of fundamental importance is that which turns upon the all-important difference in content that we may express by the correlatives Absolute and Relative, or Infinite and Finite. Practically what we find him saying is—'In addition to all the ideas we have of finite relative existences, we have the idea of infinite and absolute existence, the idea of all-

comprehensive reality.' Descartes can hardly be said to have advanced this distinction as more than one of fact; that is, he does not expressly declare that relative and absolute, finite and infinite are so related that the one involves the other, that we cannot apprehend the finite or relative except in so far as we also apprehend the infinite and absolute. But he comes very near a definite statement of this position,[1] and it is the only one which does justice to the whole conception he is working out.

2. *The Proofs of the Existence of God.*

In accordance with the axiom, there must exist in reality a cause, ground, or explanation of what is contained in our idea of the absolute and infinite, and a cause, moreover, which contains actually whatsoever forms part of, or is an element of, the content of our idea. With these two phrases are indicated the two forms of proof which Descartes offers of the existence of God. According to the second of them (the strictly Ontological argument), the real cause must have in fact whatsoever characteristic forms part of the idea. But the idea of the absolute, infinite, complete, undoubtedly involves as part of it the idea of existence. The all-comprehensive reality cannot be represented as wanting in the perfection or qualification of existence. It is as clearly and evidently contained in the idea of perfect being that it exists, as it is contained in the idea of the three angles of a triangle that they are equal to two right angles.[2] Moreover it is only in the idea of the all-comprehensive complete reality that there is contained of necessity the idea of existence. All finite ideas, that is, ideas of the finite, involve merely

[1] [Cf. Medit., iii.; Veitch, p. 126: "In some way I possess the perception of the infinite before that of the finite, that is, the perception of God before that of myself."]

[2] [Medit., v.; Prin. phil., i. 14.]

the partial representation of contingent or possible existence. In this argument the stress lies on the word 'complete.' In other words, we may say that the idea of absolute complete reality is an idea whose content can find no explanation by reference to finite and therefore limited facts. The mere presence of such an idea in us is sufficient to establish the existence of a cause adequate to account for it.[1] And this latter is Descartes' first (or Anthropological) argument. Descartes sometimes adds to these two fundamental proofs a third proof (really only a variation of the last-mentioned argument), which turns on the fact of my existence as a limited being, capable of having and actually having the idea of a perfection greater than what I possess.[2] The only interest attaching to this proof is that it again points to the connexion in Descartes' thought between Absolute and Relative. It may be said to imply that even doubt is possible only for an intelligence which possesses the idea of perfect being, and that, therefore, in the order of thought if not in the order of time, in our experience the idea of perfect being is the first.

In concluding this portion of the exposition it is well to note that Descartes emphasises the positive character of the conception of infinite or absolute being.[3] The infinite is not a negative notion; it is not the quantitative infinite, which is rather the indefinite, but the qualitative infinite, that which is complete, perfect in every way; and, as he is careful to add, we may have a sufficient representation of such perfection even though we by no means possess a detailed complete exhaustive representation of it.[4] Perhaps it is on this account that our way of representing the infinite is that rather imperfect one which consists simply in the recog-

[1] [Medit., iii.; Prin. phil., i. 18.]
[2] [Disc. de la méth., iv.; Prin. phil., i. 20.]
[3] [Medit., iii.; Veitch, p. 126; Prin. phil., i. 26, 27.]
[4] [Cf. Prin. phil., i. 19, 22.]

nition of the impossibility that it should be limited. Descartes thought it necessary to say that we could understand that infinity was unlimited even though we could not obtain a complete detailed conception of what is embraced in absolute reality.

Of the two arguments, the Ontological and the Anthropological, the latter turns on the consideration that the conception of an infinite perfect reality is inexplicable by reference to any finite cause: there must therefore be assumed as its sufficient ground an actual existence containing as much reality as is in the idea, that is, an actually existing infinite reality. Descartes generally proceeds as though it were by simple inspection of the ideas possessed by us that we become aware of the idea of infinite reality in us. In other words, he generally expresses himself as though there were no more to be said about the idea of infinite reality than that it does form part of the contents of thought. But it is fair to say that indications are not wanting in him of the view developed later by the Cartesians, Malebranche, and Spinoza, that the idea of infinite reality is not merely a fact in mind but necessarily exists in our thinking. The link of connexion required for this argument is hinted at by Descartes when he insists on the primary character and the positive nature of infinitude. In a more concrete way the same hint is conveyed in his way of insisting on doubt as an imperfection of our nature, and of the consciousness of imperfection as necessarily relative to the idea of the perfect. Not only, then, is it to be said that we as imperfect beings could not produce or account for the idea of perfection which we find in us, but it must further be said that we can only become aware of imperfection in ourselves by contrasting our own limitation with the unlimited and perfect. The same train of thought appears in what Descartes has to say of truth and error. Fundamentally, his answer to the doctrine of un-

limited scepticism comes to be that only through the possession of some kind of illumination from the truth could we become aware of the imperfection of error, and alive to the necessity of seeking out a criterion or standard of truth.

If, now, it be assumed that in the idea of perfect reality we possess a well-grounded knowledge of existence, we may turn to account what is implied in the nature of existence thus disclosed to us; and here[1] Descartes makes a turn in his argument which has always caused perplexity in the minds of his expositors. The perfection of God implies His perfect veracity, that He will not and cannot play towards us the part of that hypothetical malicious spirit the conception of which casts doubt upon the truth of sense-perception and even of mathematical intuition.[2] It is now possible to accept as having value with respect to existence whatsoever we clearly and distinctly apprehend to be true when we consider our own ideas. The veracity of God thus supplies, if we employ the term in its more modern sense, an 'objective' rule of certainty. Hitherto the argument has gone on the ground of the truth of what is clearly and distinctly apprehended as true. Here we seem to get a rule antagonistic to this and yet resting on it.

On the surface Descartes seems to be arguing in a circle. It would seem as though, according to his argument, we reached the veracity of God only by assuming that what we clearly and distinctly apprehend to be true is true, whereas now it is only because of the veracity of God that we seem entitled to claim for what we clearly and distinctly apprehend to be true, objective validity, that is, value as determining real existence. It may assist us in considering this perplexity if we return to the question, Why did Descartes permit himself to doubt of the truth of mathematical propositions?

[1] [Medit., iv.] [2] [Cf. Medit., i., ii.]

(The question was, Could an atheistic mathematician not know mathematical truth?)

The answer Descartes offers to this question[1] appears to be of the following nature. In respect to the individual propositions, when and as each is conceived, it is impossible for us to doubt the truth of what we clearly and distinctly perceive; but in respect to all such propositions it is possible for us to adopt another point of view. Thus, for example, if I have perchance forgotten the chain of steps of an argument through which I passed to a conclusion accepted by me as true, I may now find myself in doubt as to whether I am really entitled without qualification to accept the conclusion as true; that is to say, in other words, we must not overlook the consideration that knowledge forms a system, an interconnected whole, and that the absolutely sufficient ground for receiving knowledge in general as valid must be such as would secure us not only in respect to isolated portions but in respect to the whole. Thus the certainty which follows from clearness and distinctness of perception in each special case requires to be supplemented by some additional security if our thinking is to claim rightfully an insight into or knowledge of the systematic whole of reality.[2]

The objective rule of certainty, that, in consequence of the veracity of God, we are entitled to ascribe objective validity to what we clearly and distinctly apprehend to be true, connects itself in Descartes' speculations with his explanation of the origin of error. The origin of error is obviously one small portion of the large problem which must arise whenever one reflects upon the separation and contrast between the infinite perfect reality on the one hand and the finite imperfect human spirit on the other. Descartes, it

[1] [Prin. phil., i. 13.]

[2] See Medit., v., conclusion, where Descartes has two things in view (1) clear and distinct apprehension of the truth of isolated facts, (2) systematic order among them.

must be said, expresses this contrast in one of the crudest fashions in which it can be put, and thereby renders the problem of explaining the imperfection of the finite all the harder. He did not consider the problem of moral or even of physical evil in the world. He considered but one aspect of the problem—intellectual error.

As regards intellectual error, Descartes' explanation turns upon the deep-going distinction between passive and active in mind, or, as they may be compendiously named, Understanding and Will.[1] Understanding is passive;[2] and it would be strictly correct to say that, according to the Cartesian view, Understanding means the several ideas which the mind possesses. It is not a power of mind, but simply a collective term embracing all the ideas the mind possesses. Such ideas may differ considerably in respect to their content; that is, as Descartes puts it, different things may exist objectively in mind, as, for example, a quite spiritual fact may be represented in idea, or a mathematical figure, or a so-called concrete object of sense-perception. If we desire to put a further limitation on Understanding, we should have to say that it consists of those ideas the contents of which clearly, distinctly, and adequately express the nature of the thing represented by them. Thus, for example, were we to take the idea of an object of the senses, say, the piece of wax Descartes uses as his illustration,[3] we should find that some part of the content of that idea is vague, fluctuating, indistinct, such as the qualities it appears to possess of colour, degree of hardness, &c. Others, notably its extendedness and mobility, are clearly and distinctly apprehended, and seem indeed to be essential to the existence of a sense-object at all. The ideas of these latter features only would constitute the Understanding in the narrower sense. To say then, as Descartes does, that Understanding is passive is only to

[1] [Medit., iv.] [2] [Œuvres, viii. 513; ix. 166.] [3] [Cf. Medit., ii.]

repeat in a specialised form the general position that truth is eternal, not dependent on the finite will nor created by it, but flowing from the infinitely perfect nature of God.[1] Obviously it is but a short step from this to the rather mystical conception of Understanding found in Malebranche: that ideas, or the Understanding, constitute the existence of God in us or the vision which we have of the divine nature.[2]

If truth be thus the presence in us of ideas, of understanding, any error is explicable only by reference to the active power which coexists with understanding. Of such active power Willing is no doubt the most prominent representative; but identical in kind with Will is the act of judging, in which I assert that what is contained in my ideas is true. Such act does not itself secure truth. It only conforms to truth when nothing is asserted except what is clearly and distinctly apprehended as constituting the essential nature of the object known.[3] It is possible, seeing that judgment is not an offshoot from understanding, seeing that it has a liberty of its own, for us to assert that what is only obscurely and indistinctly apprehended is true, as, for example, in the case of sense-perception, when I am led to assert of these confused vague representations of colour, hardness, and warmth that they are objective qualities of the thing, this piece of wax. In truth we can hardly be said to have ideas of these qualities; it is doubtful even whether we have images of them. We err, then, when we assume that what is indistinct, vague, and confused has objective validity; and the explanation of the error is the liberty or freedom of the active power of judgment.

[1] [Cf. Medit., iv.; Veitch, p. 142: "Every clear and distinct perception . . . must of necessity have God for its author, . . . and consequently is undoubtedly true."]

[2] Note how close this comes to the old Platonic position, especially as found later when modified by Christianity—*e.g.*, in St Augustine. [Cf. Descartes, Œuvres, x. 130.]

[3] [Cf. Medit., iv.; Veitch, pp. 138-140.]

In the infinite mind there is no such conflict or possible opposition as in the finite spirit between Understanding and Will.

I feel doubtful as to the ultimate ground which prompted Descartes to assign in the divine nature the superiority, the primacy, to Will. He could not help being entangled in the ancient discussion as to whether the Will or Reason of God was the superior.[1] And perhaps the ground for his decision in favour of Will may have been in his mind a necessary consequence from the designation of Understanding as passive; for in the divine nature nothing can in the strict sense be passive. Thus he would naturally be led to identify Understanding and Will in the divine nature; and this perhaps is what he desires to have understood even when in words he distinguishes between them and assigns the priority to Will—a priority which is, of course, not priority in time.

II. Systematic Philosophy.

Up to this point Descartes has been occupied with what may be called the preliminary investigation. He has been enabled to advance in the light of his general doctrine of method from the provisional tentative doubt to an all-comprehensive principle both of objective fact and of subjective certainty. By means of the distinction between Understanding and Will, as that distinction is presented in the finite spirit, he has also been enabled to explain, so far, the divergence of subjective certainty from objective fact. Perhaps it may be necessary for us, from a critical point of view, to doubt the value of that antithesis between Understanding and Will on which he lays so much stress. We may be even called upon to question later whether there is any necessary connexion between the finitude of the mind and

[1] [Cf. Œuvres, vi. 109 f.]

the antithesis between Understanding and Will; but according to Descartes' view, which at present we shall accept, were the finite spirit merely endowed with Understanding, did it only receive in a passive way the truth which shines upon it from the divine nature, doubt would be impossible: there would be an exact coincidence between subjective certainty and objective fact.

If we avoid this possibility of error, if we resolutely refuse assent to any proposition where the necessity of connexion between the ideas involved is not clearly and distinctly perceived, we may proceed to apply to the whole structure of existence or contents of our ideas—these are synonymous expressions — the method whereby true science is worked out. We may begin with the simplest, most fruitful, and most comprehensive data, and develop systematically the consequences that follow from them.

It will be observed that in such a development the link of connexion is what we are in the habit of calling that of 'ground' or 'reason' and 'consequent.' Our whole intellectual effort is but the repeated endeavour to survey the contents of Understanding as a connected system of reasons and consequences. Naturally and inevitably Descartes is led to bring into the most intimate relation, if not explicitly to identify, 'ground and consequent' with 'cause and effect.' Such identification is the overmastering conception in the more developed Cartesianism of Spinoza, but Descartes is constantly approaching it; and it would be hard, in terms of his own doctrine, to establish a final distinction between them.

In developing his systematic philosophy Descartes moreover identifies, and this without qualification, the simple datum from which we are to start with the all-comprehensive: for the starting-point is the divine existence, the perfect being, whose existence is dependent solely on its essence or

nature. There must always be a certain difficulty, and I note it for purposes of after criticism, in identifying the simple with the all-embracing; and, possibly, when closely inspected, the processes by which we pass from the simple to the more complex, and from the all-comprehensive to the limited and contained, are only in appearance identical. Indeed, even on the surface it ought to be observed that the one, the procedure from the simple to the complex, is synthetical; the other procedure—from the all-comprehensive to the limited and determined contained in it—is analytical. It is a bold assumption that these are essentially the same.[1]

If now, dealing analytically with the simple as the all-comprehensive, we proceed to develop its content in accordance with the general condition of connecting consequents with their grounds or reasons, we shall find that the first and chief division we have to make is that between the 'absolute' and the 'relative'; for these terms name simply what is otherwise named in the relation of ground and consequent. The relative is that which requires, in order that a clear intelligible idea of it should be formed, the idea of that on which it depends. And we cannot proceed endlessly from relative to relative. There may be more and less complex relatives; but in the final resort the relative is that of which the notion requires as its complement the notion of the Absolute, the final ground. Already Descartes has determined that the divine nature is that of which the notion is required in order to render clear and distinct the notion of aught else. God is the only Absolute, and as existing is therefore substance, and, in the strict sense of the word 'substance,' the only substance; for 'substantive being' is existence of which the ground is in itself.[2] Such

[1] They involve the same difficulty—that of explaining limitation.

[2] [Prin. phil., i. 51.]

substantive being can attach only to the all-comprehensive Absolute, or God. The contents of our ideas (the whole structure of existence), if closely inspected, will show (1) a connexion of a similar kind among themselves, a connexion, that is, of the relative with the absolute, and (2) a relation of dependence, in so far as they are limited at all, on the only absolute in the strict sense, namely, God. Thus, for example, all the varieties of what is called inner experience are special modifications of consciousness, and therefore require the notion of consciousness in order that they may be apprehended or clearly known. Consciousness itself, as we have already seen, is inextricably combined with the existence of the conscious being. Thus all the inner experience may be regarded as the line of development of the forms of conscious existence, while, again, as has also been made clear, the conscious subject requires for its complement the notion of absolute existence, of God.

In a similar fashion all that we can clearly and distinctly apprehend as constituting the nature of bodies may readily be shown to be modifications of extendedness; without extension our notion of particular bodies is impossible, and extension again has a relative character in it. It is a quality which we can only conceive as belonging to what is, in respect of it, substance, that is, corporeal nature. But, just as in the case of consciousness, so in the case of corporeal extended nature, it is impossible to think of it as an ultimate: it has not the reason of its existence in itself. It does not follow necessarily from the notion of extended body that it should exist. Consequently all corporeal nature is to be regarded as the line of development of the forms of extension, and as ultimately having the ground or reason of its existence in the absolute reality or God.

Thus, if and in so far as we make abstraction of all but understanding, if and in so far as we confine our attention to

what is clearly and distinctly apprehended as content of our ideas, the scheme of existence is (1) the absolute ground, all-comprehensive reality, God; (2) the totally distinct lines of development—on the one hand, finite minds and their modifications; on the other hand, corporeal extended bodies and their modifications.

But, although, so far as the notion of them is concerned, consciousness and extension are wholly distinct and independent, that is to say, although the conception of the one does not require the conception of the other, yet, in point of fact, our experience discloses to us a mode of combination (let it be called) of these two of a peculiarly intimate character. Not with clearness and distinctness of apprehension, but through experiences of a more confused and vague kind, we are compelled to the conclusion that soul and corporeal nature, particularly in and through that portion of it which is the organised body, are so combined that they form—I do not use Descartes' words—not an intelligible, but an empirical, unity or compound whole.

From this point of view, then, the systematic representation of existence, that is, the science to which finally we hope to attain, would involve (1) such representation as we can make of absolute reality—the final ground of all relative existence—first Philosophy, or speculative Theology, or Metaphysics; (2) the doctrine of consciousness, Psychology, in a very restricted sense of that term; (3) Physics, the general mechanics of corporeal nature; and (4) what Descartes does not name, what on the whole he very naturally inclines to include under Psychology, but for which no term is so appropriate as the modern technical word Psycho-Physics—the doctrine of the inter-relation of soul and body. Within this fourth division, according to Descartes' treatment, there falls the consideration mainly of the emotions, but likewise of perception in so far as that is dependent on or conditioned

by sensation, and finally of voluntary movement, the control of the body by the mind.

Of the four divisions, two only are worked out in any detail by Descartes, the Physics and the Psycho-Physics.

1. *The Cartesian Physics.*

The Physics is the detailed elaboration of one important and fruitful conception, that all processes of nature are ultimately explicable by the quite general and simple laws of the movement of extended body. It is true that, in working out this broad view of natural science as a universal mechanics and in bringing it into relation with his general philosophy, Descartes, first, has to make one large, vague, and highly dubious assumption, and, secondly, fails in many respects to attain to a perfectly clear insight into the really fundamental laws of mechanics.

As regards the former point, I refer to his remarkable mode of finding a means of introducing multiplicity, variety, concreteness into the abstract representation of extended body. Movement is not involved in the conception of extension. If there is movement, the explanation of it must be outside of nature. Absolute Reality, God, is obviously the only explanation remaining, and so Descartes conceives of God as communicating to extended nature a quantity of movement which, in accordance with the immutability of the Divine, is constant in amount.[1]

According to Descartes' view, the essence of corporeal nature is extension. No doubt, in accordance with his general line of thought, extension is to be regarded as the nature or attribute of a substance—namely, body. But not only does Descartes himself admit that it is extremely difficult to apprehend the distinction between extension and

[1] [Prin. phil., ii. 36 ; Veitch, pp. 290-1 ; cf. Œuvres, x. 129.]

extended substance; he also admits that it is in fact impossible to discover any feature which enables us to distinguish between them.[1]

No other quality of so-called corporeal things has the character of absolute necessary presence in order that body shall exist. If we call them qualities at all, we must call them relative, a distinction which in modern philosophy had already been drawn by Galileo, and which, of course, we can trace back to the early atomists. These relative qualities, in so far as they are intelligible, are to be understood as flowing from changes in or of extension. Such changes, however, are neither logically nor in fact involved in extendedness itself. If we call them comprehensively 'movement,' we must postulate as ground of movement something lying outside of extension both in notion and in fact. The external cause of movement is the absolute reality or God; and, in consequence of the immutability of the divine nature, it must also be postulated that the same quantity of movement originally given to the universe of corporeal nature is continuously maintained in it.

At this place an interesting special doctrine of Cartesianism calls for remark. Much discussion in speculative Theology had taken place with respect to the two notions of Creation and Conservation. It is peculiar to Descartes' view that he should insist on the essential identity of these two notions. Conservation is for him continuous creation. It is not easy

[1] [Prin. phil., i. 63: "Thought and extension may be regarded as constituting the natures of intelligent and corporeal substance; and then they must not be otherwise conceived than as the thinking and extended substances themselves, that is, as mind and body, which in this way are conceived with the greatest clearness and distinctness. Moreover, we more easily conceive extended or thinking substance than substance by itself, or with the omission of its thinking or extension. For there is some difficulty in abstracting the notion of substance from the notions of thinking and extension, which, in truth, are only diverse in thought itself" (tr. Veitch).]

to discover from Descartes' expressions the basis on which this view was rested. To some extent it seems to connect itself with a special interpretation of the baffling obscure element of time in our experience. Each moment of time with its filling in of occurrence seems to be conceived of as an isolated unit, from the notion of which *per se* there cannot be deduced as necessary any other unit of time with its filling-in of event.[1] Consequently, the succession of units of time with contained events requires a constant appeal to the same energy, or force, or ground of explanation to which we refer any one of the units of time. In the concrete, the conservation of the universe is to be interpreted as implying the continuous exercise of that creative energy required as explanation of any one event, any one content of time.[2] Later it will be seen how important this thought is in the general doctrine of Occasionalism.

Accordingly, movement in the universe is the expression of a continuous act of the divine nature; and, as that nature is immutable, the act has a constant character. Descartes interprets this as signifying that the quantity of motion in the universe is always the same. It has to be said that he nowhere succeeds in bringing to clear and precise terms the abstract notion of quantity of movement. In fact, on this point his whole doctrine of physical change is at fault.

It must also be said that Descartes in no way succeeds in freeing his general doctrine of Physics from the ambiguity attaching to the notion of extension. Just in so far as body is identified with extension, it becomes necessary for him to represent extension as though it were an absolute fixed expanse. In fact he must represent space as being a real thing continuously filling up the corporeal universe—some-

[1] Cf. Resp. ad prim. obj., Œuvres, i. 381.]

[2] [Medit. iii.; Veitch, p. 129; axiom ii. in Responsio ad secundas objectiones; Œuvres, i. 458; Veitch, p. 270.]

thing resembling what Newton afterwards called Absolute Space. Accordingly, Descartes is driven by the force of his own definition, which identifies extension with extended substance, to the very curious consequence expressed in the following passage:—

We have almost all fallen into this error from the earliest age, for, observing that there is no necessary connexion between a vessel and a body it contains, we thought that God at least could take from a vessel the body which occupied it, without it being necessary that any other should be put in the place of the one removed. But that we may be able now to correct this false opinion, it is necessary to remark that there is in truth no connexion between the vessel and the particular body which it contains, but that there is an absolutely necessary connexion between the concave figure of the vessel and the extension considered generally which must be comprised in this cavity; so that it is not more contradictory to conceive a mountain without a valley than such a cavity without the extension it contains, or this extension apart from an extended substance, for, as we have often said, of nothing there can be no extension. And, accordingly, if it be asked what would happen were God to remove from a vessel all the body contained in it, without permitting another body to occupy its place, the answer must be that the two sides of the vessel would thus come into proximity with each other. For two bodies must touch each other when there is nothing between them, and it is manifestly contradictory for two bodies to be apart, in other words, that there should be a distance between them, and this distance yet be nothing; for all distance is a mode of extension, and cannot therefore exist without an extended substance.[1]

The conception of a constant quantity of movement no doubt allows Descartes to formulate in a fairly satisfactory manner the general laws of the motion of a moving body, but by reason of the inherent defect in his conception of this quantity of motion he is quite unable to apply these general

[1] Prin. phil., ii. 18; tr. Veitch, p. 242.

laws with success to the all-important special problem of the communication of movement from one body to another. So far, therefore, it must be said that it is not so much by working out in detail a conception of a universal mechanics as from the general character of that conception that the Cartesian Physics deserves such high recognition as embodying a leading principle of modern philosophy. In other words, the significance of Descartes' work is even greater on the negative side than on the positive. The conception of nature as essentially involving no other change than that of movement in space at once excludes a multiplicity of grounds of explanation which previous thinking and our common prejudices are apt to impose upon us. Thus, for example, it is implied that the cause of all changes of distribution of parts in the extended universe is mechanical in kind, so that no explanation of natural events in terms of final cause is admissible.

Such a result may perchance be capable of justification when its terms are thoroughly defined. It is obvious that it runs counter to what appear to be well-established facts of experience. These facts, presenting themselves most commonly in the region of organic life, were by no means overlooked by Descartes. Indeed his application of the general principle to them constitutes one of the most important results in his philosophy. Organic life as such is in his view wholly mechanical. Perhaps little objection might be felt to this; but the possibility left open of distinguishing between the merely vital processes of an animal and other processes in which the causes appear to be of a psychical kind is not ignored by Descartes. He raises the question and decides it firmly in the negative. Animals, as he puts it briefly, are only automata. The movements which we interpret as indicating purpose on their part are strictly mechanical effects following automatically from certain

stimulations in the animal body, and perchance in what may be called the animal soul.[1]

Descartes himself leaves it somewhat in doubt whether he is prepared to deny to the animals even those passive psychical experiences which do not involve the consciousness on the part of the subject of his own existence. It is a little doubtful whether Descartes would go the length of saying that animals have no sensations. He tends in that direction, and several of his followers pushed the reasoning to its logical conclusion.

Obviously, whether the problem be made quite general or restricted to particular cases, there is here a difficulty which must certainly be solved before we can define the exact scope of the assertion that final causes are not admissible as grounds of explanation in nature. The problem has certainly not lost in significance since the time of Descartes. It has become more pressing, and in fact one might use the Kantian term 'antinomy,' or conflict of apparently conclusive reasons, to indicate the present position of the problem. For, on the one hand, we have this conception of the realm of physical change as a closed or conservative system; on the other hand, we have the accumulated evidence of biological facts appearing to point to a distinct part played in the development of organic life by the phenomena of sensation and feeling.

2. *The Cartesian Psychology and Psycho-Physics.*

If we turn to the Psychology of Descartes we find ourselves at once confronted by the difficulty of defining the relation between consciousness in the sense in which it appears in the fundamental formula 'Cogito ergo sum,' and in the sense in

[1] [Disc. de la méth. v. ; Responsiones Quartæ, pt. i., towards the end ; Responsiones Sextæ, § 3 ; letter to H. More, 5 Feb. 1649, Œuvres, x. 204 ff.]

which it is the simple or universal ground, of which all the varieties of inner experience—perceptions (whether of understanding or of sense), volitions, feelings, and sensations—are the modes.

It will be better to approach this problem from the side of the Cartesian doctrine which we have called psycho-physical; and here we shall ask first, In what way, according to Descartes, do we become aware of the existence of external bodies? Descartes himself does not proceed with the help of a distinction now familiar to us, that between knowledge as attained and the process of attaining knowledge, yet there corresponds to this in his statement a distinction which in the case before us is to the following effect: From the idea we possess of external things and of our own nature as thinking, we clearly and distinctly perceive that body exists, that it is wholly different in nature from mind, and that it is therefore external to mind; but since it is possible for us to doubt of the real objective character of the bodies we seem to perceive, and since we are actually liable to error in sense-perception, it is necessary to point out in what way we come to the idea of external things, and how we justify such certainty as we entertain respecting their existence.

There runs throughout Descartes' account of knowledge a rather curious antithesis between idea and sensation, an antithesis which in the long run he finds it impossible to retain in its first sharpness. In the apprehension of the existence of material bodies the two opposed factors seem to be in some way brought into combination. Descartes never hesitates when enumerating the modes of consciousness to place sensations, such as those of the temperature, colour, degree of hardness of bodies, alongside of ideas of their objective properties—extension, figure, movement. He even at times makes a certain further distinction, opposing to one another sensations which we refer to the external things

themselves and sensations which we refer to our own body or the complex of soul and body,[1]—a distinction somewhat resembling that drawn by many modern psychologists between special sensations and organic sensations. Evidently the combination of the two factors—idea and sensation—only makes more precise the problem to be solved, 'In what way do they co-operate and give rise to the total apprehension of existing material things?' Let there be put aside for the moment a general question which might be raised with respect to that apprehension, namely, as to the degree or amount of objective validity which it possesses. Let there only be considered the manner in which, in point of fact, the total apprehension comes about.

With some difficulty, for Descartes does not throughout express himself in identical terms, we extract from him the following account of the total process. By reason of the stimulation of the nerves a certain agitation is propagated throughout the body, affecting principally one definite portion of the brain, the pineal gland, which Descartes singled out by reason of its position as the centre towards which the nervous currents, what he called animal spirits, converged. Each special stimulation of the nerves of sense effects a definite change in this central body.[2] All the steps of this process lie within the region of corporeal nature. They are explicable entirely and only as parts of the mechanism of corporeal nature; and though we use in ordinary speech the term 'sensation' to indicate the result of such a process, it is to be remembered that, so far as the process is one of change of position of the parts of body, it falls under the attribute of extension, and has no feature in common with consciousness. In so far as sensation is a term indicating any state (as we shall call it) in which the conscious mind is aware of

[1] [Cf. Prin. phil., ii. 1-4; Medit., vi.; Veitch, p. 154.]

[2] [Cf. Prin. phil., iv. 189, 196; Diopt., iv. 1; De pass. an., art. 31, 32, 34.]

anything, it applies to what may be connected with but what is wholly distinct in nature from the process so far described.[1]

If then the distinction is of this absolute kind, if we must refer to wholly disparate regions of fact, sensation as a mode of consciousness and sensation as a process of change in the animal body, in what relation do these stand to one another? A very similar problem is presented by the facts of imagination; and here Descartes is more successful in his use of technical terms. He contrasts not once but repeatedly idea and image, and the contrast is obviously the same as that between sensation as a mode of consciousness and sensation as a process in the animal body. Descartes does not allow himself to use a term employed largely by the minor Cartesians as an equivalent for image, namely, 'material idea,' but in fact that term conveys very accurately what he understood by 'image.'[2] The 'image' is a certain determined disposition of the parts of the brain effected by changes in the flow of the animal spirits (that is, nervous currents); and when we, as we put it, imagine something, the mind, as Descartes himself expresses it, directs itself to the image or material idea. The 'idea' is, in our modern phraseology, the content apprehended. It has—and this so far is Descartes' doctrine—no existence except this consciousness, and therefore idea and image are wholly and absolutely distinct, and their relation constitutes a new problem.

Evidently the relation is not of the kind which our familiar habits of thinking would lead us to assume. It cannot be understood as that of cause and effect. It is requisite for the relation of cause and effect that the notion of the one

[1] At times Descartes is found using the term "sentiment" (or sensation) to indicate either the physical process or the state of a conscious being; and it would almost seem that his apparent wavering on the question whether the animals have sensations is due to the ambiguous term employed.

[2] [Cf. Medit., vi.; Veitch, p. 153; and Œuvres, ii. 297.]

should require the notion of the other; but the notion of consciousness, according to Descartes, does not require that of corporeal nature: the two are wholly distinct; and causal connexion between them is unintelligible.[1]

Again, Descartes, as we saw, contrasted Understanding and Will. The Understanding is wholly passive. Any judgment or assertion which we make about the contents of our ideas is an addition to the presence of the ideas themselves. The understanding therefore might not unfairly be described from Descartes' point of view as the aggregate of ideas, of contents separately apprehended.

Such ideas are perhaps only to be called Understanding when their contents are clear and distinct; but it is evident that such a restricted signification would not invalidate the contention that, in respect to the existence of ideas in consciousness, differences among them are not of kind but solely of degree in distinctness and clearness. Now Descartes, more than once, has classified ideas with reference to the manner in which, as he puts it rather metaphorically, they come into mind. Some, for example, are innate, manifest by the 'natural light'; others adventitious, proceeding from external objects; others factitious, or made by ourselves.[2] It is quite evident that, so soon as the peculiar characteristic of ideas is realised, these distinctions must vanish. They indicate no difference among ideas themselves.

It was not without some struggle that Descartes was driven to this far-reaching conclusion. In the little work—the 'Notes on a certain Programme'[3]—he deals with a position included in that 'Programme' according to which it was laid down that the mind does not require innate ideas, notions, or axioms, and that all that is needed is the faculty

[1] ["The organs of the senses convey nothing to us of the same character as the idea which is formed on occasion of them."—Letter to Mersenne, Œuvres, viii. 534; Veitch, p. 279.]

[2] [Medit., iii.; tr. Veitch, p. 118.]

[3] [Œuvres, x. 77 ff.]

or power of thinking. In his answer to this Descartes draws the only conclusion possible from his premisses, namely, that innate ideas do not constitute one species distinct in kind from others, for in strictness no ideas can ever be given to the faculty of thinking, to mind, from anything distinct in nature from it. Neither external bodies nor other finite minds can produce ideas in any one consciousness. In the sense, therefore, which Descartes accepts, of idea as the terminus of a definite modification of consciousness, it must be said that all ideas are innate in this respect, that they are not imported into mind from without.[1] And, with equal strictness, it must be said that they are all produced; for, in accordance with the general maxim to which attention has been already drawn, the previous state of a finite is not the cause, does not give the explanation, of its subsequent state. Thus there is left for Descartes only the answer which he himself expresses very tentatively and hesitatingly—that ideas are all, whether we call them innate or derived, produced directly and continuously by the divine will.[2] Whatever

[1] ["I have neither written nor held that the mind is in need of innate ideas which are anything different from its faculty of thinking. But when I remarked that there were in me certain thoughts which did not proceed from external objects, nor from the determination of my will, but from the mere faculty of thinking which is in me, that I might distinguish the ideas or notions which are the forms of these thoughts from others adventitious or factitious, I called them innate: in the same sense as that in which we say that generosity is innate in some families, and certain diseases, as gout or calculus, in others—not that the children of such families suffer from these diseases in the womb, but that they are born with a certain faculty or disposition to contract them. . . . The ideas of no things, such as we form them by thought, can be presented to us by the things: so that there is nothing in our ideas which is not innate in the mind or faculty of thought, with the exception of those circumstances which have respect only to experience: as in the case of our judging that such and such ideas, now present to the mind, refer to certain things outside us. These things did not transmit the ideas to the mind through the sense-organs; but they transmitted something which gave to mind the occasion to form the ideas at that rather than at some other time."—Œuvres, x. 94-6; Veitch, pp. 287-8, 278.]

[2] [Cf. Œuvres, x. 130.]

then may be the relation between the changes of external nature and ideas in us, it can be named, in a general way at least, as only that of conjoint occurrence. Deeper ground of relation no doubt we may seek, and think we find, in the divine will, to which resort must be had in the long run in order to explain what is otherwise inexplicable.

It is only through this general discussion, and in the light of the general conclusion it yields, that we can interpret what Descartes desires to say about external perception. There occurs, in a manner connected with the outer stimulation of the body, a change in consciousness which has a more or less definite content. If the content is at its lowest degree of clearness and distinctness, it scarcely affords the means for referring it to external nature as a property of things, or to the world of consciousness as one of its modes. It keeps nearest to the confused combination of soul and body. A somewhat higher degree of distinctness enables the reference to be made to external things, and, just because of the lack of clearness and distinctness, we are induced to regard the content of the idea as representing a quality actually existing in external things. The highest degree of clearness is found in the ideas which represent marks we can see to be necessary to the very existence of external corporeal things.

This exposition of the process of sense-perception, of course, leaves quite unresolved the general question, With what justification at all can the finite spirit, whose ideas lie wholly within consciousness, assume that there corresponds to his ideas something in corporeal nature? To this general question Descartes returns the familiar answer, the veracity of God; nor did he handle the problem further. Thus he approaches as nearly as possible to the general doctrine called afterwards 'Occasionalism': in accordance with which we are

to conceive of the system of corporeal nature and the system of ideas in finite minds as working together by reason of each being determined by one and the same all-comprehensive will. The changes in the stream of ideas and the changes in external nature accompany one another. The latter may be called, though without any very satisfactory reason, the 'occasion' on which the divine will calls into existence the idea which represents it.

It appears, then, that Descartes' general principle, if consistently developed, leads to Occasionalism. The apprehension of the outer world, on Descartes' principles, can only be understood with the help of the general conception of Occasionalism, according to which the wholly independent series of modifications of mind on the one hand and of changes of corporeal nature on the other are alike effects of the divine will, continuously upholding in respect to them a certain definite relation of concomitance.

It is worth noting that Occasionalism, though generally expressed in connexion solely with the difficult problem of the relation of mind and body, is itself but a special form of a still more general thought; and the more general conception can without difficulty be traced in Descartes' fundamental principles. Consider, in the first place, what is meant by the clear and distinct perception of any idea. We seem bound to conclude that Descartes means by 'idea' what we call the content of any apprehension. No clearness or distinctness of perception of what is contained in an idea can in any way justify the mind in passing to what is distinct from that content itself. There may be, I am inclined to think there always is, much ambiguity concealed under the simple metaphor 'contained in an idea'; but, making all allowance for this, the conclusion still remains: nothing distinct from that content can be legitimately assumed, however clear and distinct our apprehension of the content may be.

In the second place, one important application in the Cartesian view of this general maxim has to be taken into account. Conservation of existence, we saw, according to Descartes, could only be interpreted as continuous creation; and why? Because in the notion or idea of any one filling-in of time, of any one actual event, there was not contained the idea of the content of any other event, any other filling-in of time. Take, for example, the series of changes in corporeal nature. Whatever Descartes might have thought himself able to say with regard to the connexion of the contents of different geometrical ideas, he is perfectly clear in his view that no one of these corporeal changes as apprehended by us necessarily involves any other.[1] In fact he might have used very much the same mode of expression as Hume did:[2] Each idea is a singular event; the idea of the motion in one billiard-ball does not and cannot yield the idea of motion in a second billiard-ball; all events, like ideas, are individuals, singulars; from no one of them can we pass with necessity to another.

Precisely the same argument applies to the sequence of modifications of consciousness. In so far as they actually occur and constitute thereby the concrete life of the finite spirits they are isolated events, and the bond of connexion among them is external to themselves. It is in this conception of a multiplicity of perfectly isolated atoms held together by a bond external to themselves that we have the veritable essence of Occasionalism.

The analysis of sense-perception brings us thus close to Occasionalism. The same tendency can be traced in Descartes' mode of looking at the will and voluntary movement; but on this side of his doctrine there is so little

[1] [Resp. ad prim. obj., Œuvres, i. 381.]

[2] [Enquiry concerning Human Understanding, sect. vii. pt. i.; ed. Green and Grose, ii. 52; ed. Selby-Bigge, p. 63. Cf. Treatise of Human Nature, B. I. pt. iii. § 14.]

development that it is hard to make out how far the consequences of his view were at all discerned by him. As we saw, he separates the will from and opposes it to understanding. It has an unlimited scope, and Descartes tries to maintain, in words at least, that it is quite free in its operations. How the will in this sense is connected with voluntary motion Descartes gives us no means of determining. But, in respect to the more limited problem of the way in which the soul is connected with the movements of the body, he only says that, the movement of the body being due to the changes caused by the animal spirits in the central gland, it is possible for the soul, not indeed to produce movement, but to direct it[1] to some extent. He leaves in obscurity the nature of the process which is thus called 'direction'; and it certainly did not require much insight into his general principles to take the next step, one which historically appears to have been taken almost simultaneously by his followers, Cordemoy[2] and Geulincx. They pointed out that, just by reason of the total distinction between soul and body, any interaction was impossible; and Geulincx has the additional credit of seeing the application of the general principle not merely to the interaction of soul and body but to the changes of either.

[1] [This statement, ascribed to him by Leibniz (Théodicée, § 60) and by the common tradition of subsequent expositors, does not seem to have been made by Descartes himself. It is to be found in the Cartesian Clauberg. See N. Smith, Studies in the Cartesian Philosophy (1902), p. 83 n.]

[2] [Cf. Stein, Archiv für Gesch. d. Phil., i. 53 ff.]

CHAPTER II.

MALEBRANCHE.[1]

THE general principles of Cartesianism can have their full significance determined only when they are followed out either in the way of application to special problems or in the more systematic fashion of development into a complete representation of existence.

Malebranche may be said to represent the first of these lines of application, and Spinoza the second. No doubt Malebranche interpreted Descartes in the light of a Platonism altogether alien to Descartes' own mode of thinking. No doubt, too, Malebranche gives to the whole doctrine a theological colouring from which Descartes wisely had kept it clear. But it is impossible not to accept the characteristic positions of Malebranche's doctrine as legitimate and even necessary developments from the Cartesian principles; and they show more fully than anything in Descartes himself the full significance of these principles.

I purpose following out but one line along which Malebranche developed the Cartesian doctrine of knowledge; for in Descartes the theory of knowledge is left in considerable obscurity.

Malebranche proceeds on the basis of the Cartesian view

[1] [Born 1638, died 1715; published Recherche de la Vérité, 1674-5, Entretiens sur la Métaphysique, 1687.]

that understanding, the faculty or capacity of knowledge, is purely passive and receptive in character:[1] its contents are altogether without the personal individual colouring to which now we attach the title 'subjective.' They might be called 'objective'; and there is no necessary connexion between understanding and that which confers the personal subjective element, 'will.' Just as in the external world the essence is extension, while movement is accidental, so as respects knowledge, understanding is the essence, volition the accident.[2] Volition, according to Malebranche, is secondary in character, determined towards the good-in-general; it requires for any definite exercise the representation of some good, and it is thus, too, that, by eagerly accepting a partial good, it may divert our nature from its true and normal course, which is towards the good-in-general.[3]

In understanding, or, as we might call it, knowledge, there are differences. The soul may perceive by pure intellection, by imagination, by the senses. By the first it apprehends spiritual facts, universals, common notions, the idea of a being infinitely perfect; also, material phenomena, so far as regards the extendedness which is their essence. By imagination the soul only perceives material things when they, being absent, are brought before the mind by the images formed in the brain. Finally, the soul perceives by the senses objects of sense when these, being present, impress themselves on the external organs of the body, and the impression is communicated to the brain; or when, in their absence, the current of the animal spirits makes a similar impression on the brain.[4]

It will be observed that in this classification of modes of

[1] [Recherche, B. I. c. 1; B. III. pt. ii. c. 3; Œuvres, ed. Simon (1846), ii. 18, 267.]

[2] [Recherche, B. I. c. 1; B. III. pt. i. c. 1; B. VI. pt. ii. c. 3; Œuvres, ii. 18, 258, 576.]

[3] [Recherche, B. I. c. 1; Œuvres, ii. 21.]

[4] [Recherche, B. I. c. 4; Œuvres, ii. 35-6.]

knowledge, which is likewise a classification of the objects known, no specific reference seems to be made to the two objects of greatest significance in the Cartesian scheme of existence—God and the soul.

As regards the former, however, Malebranche pushes to the front and elaborates a view which, at most, was only latent in Descartes' doctrine. All objects of understanding, in so far as apprehended at all, are apprehended as finite, and therefore as in necessary relation to, or as limitations of, the infinite. It is an error, says Malebranche, to suppose that we start with apprehension of the finite limited and restricted, and obtain collectively a confused idea of being-in-general. The infinite is thought when we think of being at all; the finite only by restriction of the infinite. The idea of the infinite is prior to the idea of the finite.[1]

Thus the one idea implied in all that is known is the idea of infinite being, of God. It is in God alone that we see the truth of things. Our understanding, then, so far as it carries us at all, is but the reception of the truth that constitutes the nature of the infinite being of God. "All our clear ideas so far as their intelligible reality is concerned, are in God. It is only in him that we see them, only in the universal reason by which all intelligences are illuminated. If our ideas are eternal, immutable, necessary,[2] they can exist only in an immutable nature. God sees in Himself that intelligible extension, the archetype of the matter of which the world is formed and wherein our bodies dwell, and only in Him do we see this extension, for our minds dwell but in the universal reason, in this intelligible substance, which contains the ideas of all the truths we discover whether in consequence of the general laws which unite our mind with the

[1] [Recherche, B. III. pt. ii. c. 6; Œuvres, ii. 301. The chapter heading is, "That we see all things in God."]

[2] He refers to the eternal nature of truth.

universal reason, or in consequence of the general laws which unite our soul with our body."[1] God then cannot justly be called an idea.[2] He exists for our intelligence immediately, and the ideas which make up our understanding are the ideas of His reason. We see all things in God.

As regards the soul, it is of special significance that Malebranche should exclude it from the list of objects of knowledge, of ideas. According to Malebranche, the soul is not known as an object 'through an idea.' However well assured we may be through consciousness of our own existence, and of the complete difference between soul and body, it is nevertheless not the case that the soul is apprehended by us in the way in which, for example, we apprehend the nature of a geometrical figure and therewith the properties which characterise it. We do not so much know the soul as have a confused feeling of it.[3]

Knowledge implies system, connexion of the parts of what is known. Each fact as known is related to other facts, and complete knowledge of it would be the representation in thought of all possible relations by which its place and function are determined. So the idea of system in knowledge is also the idea of a whole within which each finite has its place. Were we to analyse our thinking from the more subjective side, we should reach a similar result, for the idea of a particular is only given in thought through the idea of limitation. The general or universal in thought, determined in a particular way or mode, yields the individual, the finite. The ultimate universal thus involved in all thinking is precisely that idea of the whole which has already presented itself.

From whatever side we approach the idea of the whole we

[1] [Entretiens, i. § 10; Œuvres, i. 54.]

[2] [Entretiens, ii. § 5; Œuvres, i. 60.]

[3] [Entretiens, ii. § 10, iii. § 7, v. § 5; Œuvres, i. 66, 72, 117; Recherche, B. III., pt. ii. c. 7; Œuvres, ii. 308-9.]

can see that it is not a mere mechanical aggregate or collection. Particulars, each of which is for itself alone, do not make a whole. An intellect which supposes them to do so, and gathers the idea of an infinite whole by putting together the particulars, ignores the fact that particulars are possible for it only by recognition of the universal.[1] The idea of the whole is one of an essential all-embracing reality underlying and manifesting itself in all particular being.

Perhaps it may appear that it is erroneous to describe by the term 'idea' this apprehended essential reality, for knowledge through an idea appears to imply that the thing known is apprehended as an object, as something definite, therefore, and holding definite relations to other facts entering into knowledge. No such apprehension of the essential reality is possible. Rather it must be said that our finite apprehension, imperfect as it may be, is possible only because the essential reality is involved in all our thinking. Thus the essential reality is not known after the fashion of an object, but is apprehended as implied in the apprehension, and even in the existence, of any object. It is like the sun in Plato's metaphor. It gives not only the power of apprehending, but intelligible existence, the capacity of being apprehended, to the objects known. Thus, as Malebranche would say, not only do we know all things in God, but except through God we know nothing.[2]

In this complex of facts there must be represented the two great orders of finite fact, external things and minds. With respect to external things all knowledge we possess respect-

[1] [Entretiens, ii. § 9; Œuvres, i. 64-5.]

[2] [Cf. Entretiens, viii. § 4 ff.; Œuvres, i. 174, 177, 179: "God is not so much in the world as the world is in God, or in his immensity." "God is infinite in every respect, . . . and that which is infinite in every respect is in all ways incomprehensible by the human mind." "All the absolute attributes of the Divinity are incomprehensible by the human mind, although it may clearly understand what is in God relatively to creatures—I mean the intelligible ideas of all possible works."]

ing them, all apprehension of what is essential to their existence, is easily seen to involve an all-embracing characteristic of reality, which is manifested in them just as the infinite is manifested in all finites. At the foundation, as we may say, of our knowledge of external things, and essential to their very existence, is extendedness—extension in universal fashion. All configurations of bodies, all distinction of numerical dimensions, are but specifications of extendedness in general. This all-comprehensive essence of external things Malebranche calls 'intelligible extension.'[1] It is evidently in some way a component characteristic of the essential reality, but is not to be conceived either as one independent unit of an aggregate or as a quality or attribute. God is not to be represented as *Res Extensa*. Intelligible extension can only be taken, says Malebranche, as representing that aspect of essential reality which constitutes the foundation for the variety of nature in external bodies. Intelligible extension, moreover, cannot be represented as exhausted in the finite bodies of our particular corporeal universe. It has infinite potentiality of geometric figures and numerical relations in it. This last thought is familiar enough in Spinoza. It raises the problem, 'What constitutes the limitation of this infinite potentiality of intelligible extension to this limited universe?' Malebranche says there is no necessary connexion between the divine nature, with its infinite potentiality, and our universe. The explanation of the existence of this universe is then simply creation—the result of the arbitrary fiat of the divine nature, the infinite essential reality.[2]

As regards minds or souls, there must doubtless be contained in the essential reality the ideas which constitute or represent their real nature. Are we then to say that as the

[1] [Cf. Entretiens, i. § 10; Œuvres, i. 51, &c.]

[2] [Cf. Entretiens, vi. § 5; Œuvres, i. 135.]

relations of mathematical facts are eternal and lie in the eternal essence of God, so the relations of finite souls are eternal and likewise lie in the eternal essence of God? And can we assert that, as God, though the essence of extendedness, is not extended, so also, though the essence of mind, He is not *Res Cogitans*?

To the first query Malebranche answers ambiguously. He cannot consistently deny that the idea of each finite soul, its essence therefore, and therewith all flowing therefrom, the fortunes or destiny of that soul, must be present in the essential reality, but he will at all events maintain definitely that we are not in a position to apprehend by ideas even our own finite minds, and less definitely, with much perturbation, that room must be left for what is to be regarded as contingent, as not flowing from the essence of the finite soul.

As regards the character ascribed to the divine nature Malebranche will not allow that God is *Res Cogitans*. He may be called an infinite understanding, yet his thought is not to be conceived as entirely similar to ours. Accordingly, in his view, God is neither *Res Extensa* nor *Res Cogitans*.[1]

Malebranche, as we have seen, distinguished the mode of apprehension through ideas, which constitutes knowledge in the strict sense of the word, from apprehension through sensible images or through sense-perceptions. Fundamentally the same distinction is involved in a classification he often proceeds on: that we know things, first, by themselves; secondly, by ideas; thirdly, by consciousness or inner feel-

[1] [Recherche, B. III. pt. ii. c. 9; Œuvres, ii. 325: "As God includes in Himself the perfections of matter without being material, . . . so also He contains the perfections of created minds without being a mind in the way in which we conceive minds; and His veritable name is HE WHO IS, that is to say, Being without restriction, All Being, Being infinite and universal."]

ing; and fourthly, by conjecture. For the first and third of these divisions correspond to the limiting cases of pure intellection — the apprehension we have of the divine essential reality and the apprehension we have of ourselves. All other apprehension which is not through ideas falls under the fourth head 'conjecture.' It is not strictly knowledge.[1]

Before passing to consider this fourth sort, I draw attention to the fact that by 'idea' Malebranche understands the essential nature as apprehended of something distinct from ourselves. Pure intellection, therefore, is not in itself a modification of the soul. We may be indeed aware of having an idea, and this being aware may be called a modification of self. It is a variable concomitant, though perhaps in the scheme of things always requisite for obtaining knowledge. Indeed Malebranche sometimes inclines to call it 'attention,' and thinks it to be the one prayer of the finite spirit that its power of attention should be increased.[2]

Pure intellection, therefore, does not name an activity of mind. Rather, the fact which is named by an apparently active term is the presence of the idea in mind. The idea is not a modification of mind.[3] It is as apprehended always distinct from self, and it has therefore what in modern language we call a kind of objective existence. No doubt Malebranche has difficulty enough in explaining how this kind of entity—the idea in us—is related to the modification of intelligible reality which is apprehended through it. So far as he answers that question at all, he tends towards the mystical solution which presents itself in the broad generalities that our intellection is just the illumination of the soul by the divine truth, that in so far as we know we

[1] [Recherche, B. III. pt. ii. c. 7; Œuvres, ii. 306-7.]

[2] [Cf. *e.g.*, Recherche, B. I. c. 18; Œuvres, ii. 111; B. VI., concl.; Œuvres, ii. 690.]

[3] [Recherche, B. III. pt. ii. c. 7; Œuvres, ii. 309.]

are in and live in the divine, and that therefore the ideas are not so much representative of a reality distinct from themselves as the manifestation in us of that reality.

We turn now to the subordinate incomplete modes of apprehension. In imagining, according to Malebranche's account, the soul apprehends by means of a material image which is formed in the brain, and, as he rightly points out, since no images of spiritual or immaterial things can be formed on the brain, there is of such things no imagination. Imagination, then, at all events, is secondary and derivative. It depends on the more general process exemplified in sense-perception.

In sense-perception there is required action on the body or a stimulated condition of the body, and, secondly, a certain representation of the external thing.

Now Malebranche holds as firmly as Descartes that no corporeal action by itself effects a change in mind. He is therefore compelled to interpret sense-perception according to the general principle of Occasionalism. The stimulation of the body is only the occasion on which there comes about some modification of the soul and, it may be, some idea; but his analysis of what is thus occasioned is much more precise than that of Descartes. What happens in the soul is twofold. There is a certain modification known to us only through feeling, not constituting therefore any cognition of an object; but, secondly, there is suggested along with that, with more or less clearness, an idea.[1]

At the back of this analysis no doubt there is the distinction between the essential or primary qualities of body and their secondary or derivative attributes; but Malebranche means to say that whenever the appropriate stimulation of the body occurs, then, in consequence of the general laws

[1] [Recherche, B. III. pt. ii. c. 6; Œuvres, ii. 304. Cf. Entretiens, v.; Œuvres, i. 114.]

which the divine will has established as regulating the conjunction of soul and body, there arises, first, the feeling which we erroneously take to be apprehension of an external quality, and, secondly, the idea, more or less confused, of extendedness or some modification of extension.

Evidently there are involved here not only the laws regulating the conjunction of soul and body but also those regulating the interaction of bodies; for the stimulation of our body by extra-organic things is itself a case of that general concomitance of changes in the external world which, in the long run, rests upon the divine will.

External nature, then, not, as Malebranche would put it, in its essence as a geometrical construction, but in its accidental aspect as a system of interconnected changes, has no independent being. It is nothing but the manifestation in a special form of the divine will. Obviously, both by reason of this general account and by reason of the special peculiarity of his view of sense-perception, according to which the modification of the soul might well occur even when no corporeal external fact was involved,[1] it was, in the first place, necessary for Malebranche to say that we did not know but could only conjecture, that is, infer as probable, the concrete existence of external things, and, in the second place, it was uncommonly hard for him to make out a case for what is implied in that conjecture, namely, that external concrete existing things have a place in reality at all. He is forced to say that belief in an external world is an article only of faith: being implied in the doctrine of Transubstantiation, and in the doctrine of Creation.[2]

According to Malebranche, as we have seen, a broad distinction is to be made between understanding, apprehension

[1] [Recherche, B. I. c. 10; B. III. pt. ii. c. 6; Œuvres, ii. 74, 304. Cf. Entretiens, vi.; Œuvres, i. 128 ff.]

[2] [Cf. Entretiens, vi. § 8; Œuvres, i 140.]

in or through ideas, and that immediate consciousness which is of the nature rather of feeling than of intelligence, and of which the most prominent example is our inner consciousness of the operations or, as he called them, 'modalities' of the mind. This distinction Malebranche applied in the special case of sense-perception, assigning to the first class those clear ideas which arise in us on occasion of stimulation of the senses and in which we are aware of the primary and essential qualities of body. To the second class are referred what later psychologists called sensations, which the mind erroneously interprets as the apprehension of qualities of body, but which are really modalities of the soul, subjective processes, of which we are aware only in the indefinite fashion of inner consciousness or feeling.[1]

Now in respect to ideas Malebranche is definitely of opinion that the intellect passively receives them; they are present in mind, and they have characteristics which altogether conflict with any definition that may be offered of modalities or operations of mind.

In the first place their content altogether transcends the limits which Malebranche thinks we must assign to mind, certainly to the finite individual mind of which alone we are immediately aware as modified. The content transcends individual mental existence, and is at the same time clearly seen to be distinct from it. Thus our ideas are universal in their content. A geometrical figure, for example, as apprehended in idea (that is, as content of the definition which we should give of the geometrical figure) is not individual, and has characteristics which altogether distinguish it from such individual manifestation of it as we may suppose ourselves to apprehend in concrete actual fact. The idea is universal; any modality or operation of the soul,

[1] [Recherche, B. III. pt. i. and pt. ii. c. i.; Œuvres, ii. 259 ff., 282; Entretiens, iii.; Œuvres, i. 69 ff.]

for example, my apprehension of that idea, is individual. The figure represented is perfect; any figure we imagine to ourselves or apprehend through the senses is imperfect. The relations of geometrical figures as apprehended in idea are immutable; our acts of apprehension are all in time. Briefly, as one can see, Malebranche is describing in a variety of ways the antithesis between the objective character of truth and the subjective conditions of the operation of the individual mind.[1] Moreover he does not hesitate to press the consideration that the very character of the content prevents our regarding it as a modality or operation of mind; for, as he puts it, we may certainly regard a pleasure or pain as a modality of mind, but how can we so regard the apprehended circle, square, or numerical relation? The content of the ideas is such as to compel us to refer it to something distinct from the individual mind.

In the second place, the same distinction is latent in the antithesis, running through all Malebranche's philosophy, between essence and existence.[2] That which exists has limitations which compel us to relate it to the individual, whether finite mind or external body. The essence has no such limitations. That therefore in us through or in which the essence is manifested must share in like manner in the freedom from limitation which attaches to essence in general, and therefore the apprehended essence must be altogether distinguished from the concrete existence of the individual mind. No doubt he has difficulty in applying this distinction between essence and existence, particularly in the sphere of sense-perception. Less clearly than in Spinoza the problem appears—What determines the essence, which has in it no specialising features, no individualising element, to manifest itself in concrete existence?

[1] [Cf. Entretiens, ii. § 10 ff., iii.; Œuvres, i. 64 ff.]

[2] [Cf., *e.g.*, Entretiens, v. § 2; Œuvres, i. 114.]

It was impossible with these distinctions to avoid giving to the idea a species of existence, erecting it into a kind of entity. No doubt this quasi-independent existence of the idea is apt to become more prominent in the very special case of sense-perception; for there the idea of the qualities of the external body is on other grounds so definitely separated from the external thing, so definitely placed in another sphere of existence, that, if it is at the same time separated from the finite mind with its operations, there must be accorded to it the position which, on the whole, corresponds to the so-called 'representative' doctrine of sense-perception. The idea is something somehow existing intermediate between the mind and external nature.

As against this view Arnauld [1] pressed the objection that to understand the process of knowing it is not necessary to make a distinction between the operation itself and the content apprehended in and through that operation. If we use, as he did, the term 'perception' in the sense of apprehension, and particularly intellectual apprehension, then his view may be expressed thus: Perception is undoubtedly an operation of the mind, but it is an operation which has meaning or significance as in mind, as constituting a portion of the mental life, only when it is taken to be apprehension of a content. Perception is an incomplete notion if it be taken as operation pure and simple. It is the operation or act of apprehending. There must therefore be included in its notion the content apprehended. It is a distinction of reason, not of facts, a distinction of aspect and not of separate modes of existing, when, looking to the finite mind, we call the perception one of its modifications, and when, looking to the attainment of truth, we call the content per-

[1] Des vraies et des fausses Idées, 1683, [Œuvres philosophiques d'Arnauld, ed. Jourdain 1843, p. 347 ff.] Cf. Reid, Essays on the Intellectual Powers, Essay ii. c. 13.

ceived the idea of something. The idea is not distinct as a separate fact from the perception. What induces us mainly to make the distinction is that the perception, the act of perceiving, may become the object of a reflective operation. We may recognise it as forming part of the soul—as we should nowadays say—we should give it a place in the stream of consciousness in the mental life.

Moreover Arnauld rightly dwells on the weakness of Malebranche's fundamental distinction when based on the antithesis between the character of the content and the features special to the operation of mind. Is it to be admitted, because the act of intellectual perception is a concrete individual occurrence in mind, that therefore what is apprehended, namely, a generality, a universal, should be regarded as distinct in the way of existence from the perceiving mind? Is anything gained by assigning to the content this quasi-independent existence? I imagine that we shall agree with Arnauld that there is nothing in the individuality or concrete character of an act of mind which precludes it from being the apprehension of what is not individual, and that the counter-view proceeds altogether on a misconception of what constitutes the content or object apprehended. That content or object apprehended has certainly and in all cases, whether it be a universal or a particular, just those characteristics which Malebranche thought indicated a quite peculiar transcendental mode of existence. The content has these peculiarities for the simple reason that it is not itself an existing fact at all; it does not form part, as a concrete individual, of the sum of existence. It is this negative characteristic which is so easily transmuted into a mysterious and baffling positive.

This difference of view is of a fundamental kind. According as we interpret the characteristics naturally and rightly assigned to truth in one way or the other, we shall take one

or other of two quite divergent lines of philosophical speculation. If we give to truth this existential character, if we regard objects of intellectual apprehension as constituting a realm of existence over against which the world of concrete facts stands in inexplicable opposition, then we shall be driven along the line of that philosophical speculation which begins with Plato, and which we might call Rationalism, or Mysticism, or Idealism.

If, however, we insist that truth has significance and meaning only in reference to the thinking mind, that the term 'truth' names not an existing thing but the way in which a thinking mind organises its experience, then we shall find no antithesis between the worlds of essential reality and of phenomenal appearance. That which in the other view is called 'essential reality' will, on this conception of truth, present itself as the generalised apprehension of the nature and relations of that concrete existence which is called the phenomenal world. On the whole, this line of speculation is that which historically may be named the Empirical or Naturalist.

CHAPTER III.[1]

SPINOZA.[2]

THE whole history of past philosophy has been ransacked in order to trace the sources of Spinoza's system. Some have regarded it as simply a continuation of Descartes' philosophy; others seem to look upon it as an elaboration of doctrines to be found in the speculative thinking of the Jews;[3] a third view lays stress upon the points of resemblance it offers to the teaching of Giordano Bruno.[4] But there is no evidence that Spinoza had any special acquaintance either with the Jewish thinkers referred to or with Bruno. The amount of agreement between them is no more than is inevitable among comprehensive attempts at a philosophical explanation of things. And it ought not to be forgotten that he had the means of being fully acquainted with the general teaching of philosophy at the time; and it would not be difficult to dis-

[1] [This chapter is taken, with omissions, from a course of lectures given in 1886-87.]

[2] Born 1632, died 1677; published Renati des Cartes Principiorum Philosophiæ pars i. et ii. more geometrico demonstratæ, 1663; Tractatus theologico-politicus, 1670. The Opera Posthuma (1677) contain Ethica, De Intellectus Emendatione, and Tractatus politicus. A Dutch translation of a work, which seems to have been called Tractatus de Deo et homine ejusque felicitate, was discovered and published in 1862.

[3] [Cf. M. Joël, Don Chasdai Creskas' religionsphilosophische Lehren, 1866; Zur Genesis der Lehre Spinoza's, 1871; and other pamphlets; published together as Beiträge zur Geschichte der Philosophie, 1876.]

[4] [Cf. C. Sigwart, Spinoza's neuentdeckter Tractat (1866), p. 107 ff.]

cover in him far greater resemblance to the classical thinkers than to the Jewish writers or to Bruno. On the other hand, there is not the slightest doubt that Spinoza shared to the full the conceptions which animated the Cartesian philosophy, and that he possessed a thorough acquaintance with that system. But his doctrine is not merely Cartesianism. It is a far more complete representation of what is involved in the Cartesian philosophy than is to be found in Descartes himself. Such a system as Spinoza's did not grow into its final form without passing through some more or less imperfect stages. But the materials for tracing its development are scanty; and the inquiry itself would be more appropriate in a detailed study of Spinoza. For our purposes it is sufficient to consider the fundamental notions of his completed doctrine.

In the very title of Spinoza's chief work there appears prominently the notion of a mathematical method of laying out the contents of his philosophical conception. This method is by no means external to the nature of the conception unfolded by its means. The formal arrangement is far from being a mere form. It is the ruling thought in Spinoza's doctrine that the kind of connexion which is shown in geometry—the relation of ground to consequent—is the one supreme connexion in the system of existence and of thought. Explanation of special particulars is gained by showing that they follow from certain grounds or reasons. To explain the universe means to connect all that is therein contained with its supreme ground or reason — after the fashion that is exhibited in geometry, or mathematics generally. Knowledge has attained its ideal when it is able to present the whole contents of that which is to be known as an orderly system of connected reasons and consequents. For Spinoza, as for Plato, causation is equivalent to the relation of ground to consequent. What he is in search for,

therefore, is, in truth, the supreme ground of things—the assumption which must be made in order to render intelligible the assertion of anything else.

Nothing can be more palpable than the conflict which ordinary experience seems to exhibit between things in their concrete finitude and the ideal system of logically connected grounds and consequents with which reason seems to rest content. Spinoza does not fail to make reference to this conflict; and he decides it in an emphatic and unmistakable fashion. No distinction is dwelt on more often by him than that between Understanding and Imagination. Imagination, in his use of the term, may be taken to include all those modes of viewing things which rest content with partial aspects of what is presented—which do not involve completeness of insight into the nature of the things apprehended. To imagination, in this sense, Spinoza refers all those familiar conceptions of things which hinder us from contemplating the complete symmetry of logical conception that reason demands. It is because we view things from the standpoint of imagination that we conceive of them as being contingent and variable, and not determined in a strictly logical sequence. But the more our knowledge of a thing increases, the less possible is it for us to take this partial and inadequate view. All those familiar links of connexion, which our ordinary conceptions of things involve, and on which in truth they rest—such, for example, as local position—are, for Spinoza, merely ways in which we misinterpret the real logical relations of existence. The contemplation of grounds and consequents is the sole function of the understanding: and in this conception we find the key to Spinoza's philosophical construction. God is, for him, not a cause producing the universe, or even producing finite things, but the supreme ground or reason from which all else must be deduced as a consequent. And the

existence of these consequents is not independent of the ground, but is to be regarded as forming part of the full and complete conception of the ground itself.

The *causa sui*, or Substance, is that which must necessarily be conceived as depending on nothing but itself: its essence involves existence. Such substance Spinoza calls God; but this expression means nothing but the Unconditioned—Being, in all its fulness or completeness. Evidently, there can be but one substance; and whatever is is in God, following from His nature as a consequent follows from its logical ground. These consequents are the determinate modes of the divine being. By 'mode' is meant simply the Conditioned in all its varieties: for the conditioned is that for the conception of which the conception of a ground or reason is necessary. The modes have no real existence in themselves. As finite and limited, they are mere negations—unrealities. Any determinateness implies a negation: implies the need of a further conception, whereby the determinate is marked off, and therefore indicates an element of unreality or non-being.

In accordance with this view, bodies and minds can be nothing but modifications of the one substance. If we ask how they are discriminated from one another and how their specific nature is related to Substance, we come upon the notion of 'attribute'—confessedly a difficulty in Spinoza's philosophy. I feel inclined to accept, as veritably Spinoza's view, what seems the straightforward interpretation of the definition: "by attribute I understand what intellect perceives of substance as constituting its essence." In this mode of expression there appears to be involved a thought which can be discovered more than once in Spinoza—however difficult it may be to reconcile it with his final view—the thought that the reality of things, in itself infinite in fulness, must necessarily be apprehended in a limited

fashion, that is to say, must present only some apprehensible features. At the same time, an attribute must be taken to mean the way in which real existence is apprehended—a way which is nothing distinct from the essence of that which is apprehended, and may therefore be described as constituting its essence.

But complexities arise when we attempt to make clear the coherence of this notion with the rest of the system. Even if we admit that attribute is not a contingent variable quality, but the essence of substance as apprehended, we are still driven to the conclusion that this essence apprehended is relative to the intellect that apprehends, and is, for the substance itself, nothing. This conclusion is in keeping with the doctrine of the infinity of the attributes insisted on by Spinoza; and it is borne out by his evident perplexity when the question was pressed, How is it that God manifests Himself to us under the two aspects only of consciousness and extension? The real difficulty of the whole system lies here; and it is the conception of attribute which brings the difficulty to the front.

Many differences exist among interpreters of Spinoza as to his doctrine of the attributes. Only one of these views need be referred to here as leading to a very different mode of understanding the whole system, and involving, as I think, a serious misconception. According to Kuno Fischer, the attributes are to be considered as real potencies or powers—the two supreme powers which lie at the foundation of two lines of divine activity. This view gives a strongly realistic expression to what, I think, can be understood only in the light of the more purely logical conception which lies at the root of Spinoza's thinking. In particular, its version of the distinction seems incompatible with the merely ideal character of the difference between extension and thought, and with the real oneness of the whole universe of existence.

Consciousness and extension are ways in which the sum of being is apprehended by us; but there is only one sum of being. There is not a conscious Unconditioned and an extended Unconditioned, a world of consciousness and a world of extension. There is only one world viewed in different ways.

The attributes, which express the essence of God, are the generalities involved in the conceptions of all particular things. Each mode expresses in a special determinate manner some attribute of God. Like the waves on the sea, the modes have no existence in themselves; but they are the manner in which the infinite essence gives expression to itself. As we have seen, they are characterised negatively as limited, and so marked off from the infinite ground or substance. But each mode has also a positive or real aspect in so far as it expresses the ultimate substance or reality of things. Evidently, then, the ultimate ground cannot be, in the same sense, the explanation both of the positive and of the negative aspects of the particular modes. A thing is finite only in so far as it is defined by its relation to other finites; and such limitation evidently involves an infinite progression. All finite modes, then, in *natura naturata*—the totality of the conditioned—form a complete complex of mutually determining particulars. And in this complex it is possible to recognise gradations or stages depending on closeness of connexion with the ultimate ground or attribute.

In this way Spinoza is led to distinguish infinite from finite modes—a distinction that has resulted in much diversity of interpretation. Perhaps a sufficient key to his meaning may be found by using freely the geometrical analogy so constantly present in his treatment. In tracing particular geometrical figures to their ultimate grounds we find ourselves confronted with something very like the distinction

between infinite and finite modes. Thus, for example, the particular ratios of geometrical figures, when traced backwards, lead us to the general conception which we might indicate by the term figured space. It is from the way in which figures are described in space that there follow the special and various geometrical relations. In like manner figuredness in space does not involve any of these special geometrical relations, but rests principally on the essential characteristics of space itself, as Spinoza seems to assume.

The universe, then, according to Spinoza's doctrine, is one. The extended world and the world of conscious experience are not two worlds, of which one is the copy of the other. The one *is* the other. A circle and the idea of a circle are one and the same thing, taken now under the attribute of extension, now under the attribute of consciousness. Thus Descartes' difficulty about the relation of soul and body receives an easy solution. Soul and body are not two realities which react upon one another, but one and the same reality viewed under different attributes.

It is part of the doctrine that ideas—forms of consciousness—are not by any means limited to the inner experience of self-conscious subjects. All things are to be regarded as modes of consciousness. What characterises a mind—namely, self-consciousness or reflective consciousness—is no more than a complication of ideas, the idea of an idea. This idea of an idea comes about when there is a sufficiently intimate connexion established among the elementary ideas themselves. The unity which attaches to a self-consciousness is, therefore, a secondary or derived fact. In bodies, in like manner, there may be a unity not incompatible with multiplicity—a unity of elementary constituents, but signifying no more than that the body as a whole is acted upon, and in turn reacts upon surrounding bodies. So it is in the world of consciousness. When separate ideas are so grouped

together that they form a whole there arises naturally, Spinoza appears to think, consciousness of that unity; and this consciousness is what distinguishes one mind from another. Evidently, when the universe is thus regarded, it is necessary to extend both to modes of consciousness and to modes of extension the thought of purely determinate or mechanical connexion.

Without entering upon any of the applications of Spinoza's principles, a short criticism may be offered of his fundamental notion. While one recognises the metaphysical depth of his view of a unity in which all determinate being has its ground, one must admit that the conception of substance is far from clear, and, from its very nature, must always remain incomplete. In the first place Spinoza is far from clear. We can trace in his exposition a wavering between two ways of regarding substance. On the one hand he considers it as purely indeterminate and abstract being, such as can be characterised by no positive mark: any determination would infringe its absoluteness. Now, clearly, from such a mere abstraction—corresponding perfectly to the Eleatic notion of the One—there is no possibility of evolution. We can in no way pass from this pure indefiniteness to the determinations that are requisite in order that substance should be real. Accordingly, Spinoza as frequently treats substance as the *ens realissimum*—the sum of possible reality, which cannot be exhausted in any one attribute, and which contains all possible perfection and reality. But both conceptions cannot be retained and united. We cannot at once have the abstract indeterminateness of the ground of things and the perfect fulness of reality required for the development into finite modes.

And, whichever way we take it, the conception is incomplete: it does not enable us to connect with the ground of things the infinite diversity of finite modes. These are said

to follow from the absolute ground. But that which gives to each mode its particularity is, in the same breath, said to be the unreal negative element, of which, therefore, substance—viewed in one way or the other—offers no explanation. Whether substance be pure abstract being or the sum of all positive reality, it is incapable of explaining the negative element. It is not impossible, indeed, that Spinoza may have inclined to the view which would make the universe merely the collective sum of finite modes; but this conception would have been entirely irreconcilable with the method which is the most important characteristic of his philosophy. The ground of things, for Spinoza, is certainly not the collective sum of finite modes.

It has been said that the nature of the conception of substance might explain the peculiar difficulties of Spinoza's doctrine. By substance we are to understand the unconditioned. But such an abstract characterisation really assumes and rests upon a recognised difference between consequents and ground, which is not explicable from the ground alone. Given a universe of finite modes and their ground or reason, then we may connect these two together after the manner of Spinoza. But from the abstract conception of ground nothing further can be obtained. Substance, which is ground simply, of itself carries us no further. There is a certain subtle assumption involved in describing it as ground; for, in truth, nothing is ground which has not a consequent. It is, therefore, not in substance as severed from finite modes—as existing in a way which is not their mode of existence—that we can look for the ultimate explanation of the universe. The universal which is simply the negative of the particular elements can in no way be reconciled with these. A substance or ground of existence which is but the negation of all finite existences can in no way serve as their bond of union.

CHAPTER IV.

LEIBNIZ.

Of the career of Leibniz it is only necessary to recall a few salient facts. He was born in 1646 and died in 1716. His wonderful activity was expended on the greatest variety of objects. Trained at first for the legal profession, but having from the outset a pronounced inclination towards philosophical speculation, his first notable contributions to modern science were mathematical. A certain interest in mathematics he had always had, but it was only the chance of a mission to Paris and London (1672-76) that brought him into contact with the new methods which were then rapidly bridging over the gap between the analytical geometry of Descartes and the infinitesimal calculus. The genius of Leibniz, which united in all its productions the two characteristics—comprehensiveness and discrimination or tendency to recognise the element of difference—found abundant scope in the new ideas of mathematical method. The long disputes with regard to the priority of invention of the methods of the infinitesimal calculus seem, now that they have lost their personal touch, to have settled down to a fair recognition of the quite independent merit of Leibniz in that matter. For us it is specially significant to note that the new mathematical conceptions not only linked themselves on to several previous essays of Leibniz in the general theory of

Combinations, but deepened and gave a more important significance to certain philosophical conceptions also to be detected in even his first efforts in the direction of speculation. The principle of continuity, for example, which plays the most important part in Leibniz's developed thinking, is, in one of its forms, fundamental in the methods and ideas of the infinitesimal calculus.

The same years which are noteworthy in Leibniz's life for the development of the new mathematical methods are also significant as marking an important change in his philosophical views. So far as, at that time, his views could have taken any systematic expression, they would have been more or less in accordance with the Cartesian doctrine; but that doctrine had always for Leibniz the unsatisfactory result that it appeared to render unintelligible, to exclude from the scheme of things, the peculiar connexion commonly indicated by the term 'final cause' or 'teleology.' A general dissatisfaction regarding this particular side of Cartesianism may be traced throughout his writings. In the period 1672 onwards that dissatisfaction acquired greater definiteness by connexion with the special problem regarding the relation of movement in the universe to extension, which had been taken by Descartes as the one constitutive attribute of corporeal reality. Leibniz, in part under the influence of his new mathematical conceptions, was enabled to define more sharply the doubts he had begun to entertain concerning the laws of motion as formulated by Descartes. It is still problematical how far he may have been influenced in dwelling on this feature of the Cartesian doctrine by his undoubted knowledge that, in regard to that portion of Descartes' work, Spinoza also had expressed dissatisfaction. It is of the greatest historical significance that, in 1676, Leibniz took the opportunity of a journey through Holland to visit Spinoza. For long the fact of this visit was known only through a reference in

Leibniz's 'Théodicée'—a much later work—a reference so slight that it seemed to imply only a casual acquaintance between the two philosophers. More recent researches into the numerous materials left among Leibniz's collection of papers at Hanover have made us aware that the acquaintance was of some intimacy, that Leibniz had prolonged conversations with Spinoza, and that he succeeded in extracting from Spinoza a sight of the manuscript of the 'Ethics.'

Leibniz certainly carried back to Hanover a series of extracts from the 'Ethics'; and among the fragments of his papers there is evidence to show that he studied these in detail, and that he procured a copy of the 'Ethics' as soon as published,[1] and perused it with the same minuteness and elaboration. It is barely possible to doubt that at this time, a period always noted by the historians of philosophy as one in which no writings mark the progress of his philosophical development, Leibniz was busily engaged in revising his half-formed speculative thoughts in the light of Spinoza's fully elaborated system. That he accepted Spinoza in the mass it would be absurd to say, but that for some years he worked almost entirely from the premisses supplied by Spinoza may fairly be asserted. But he found in Spinoza nothing to supply a positive answer to the doubts entertained by both respecting Descartes' view of motion, and he found in him an even more strenuous rejection than in Descartes of the doctrine of Final Causes. In tracing his own philosophical development it is of interest to note that, at this time, while dwelling on the elaborated mechanical system of Spinoza, Leibniz found himself drawn to the ancient philosophies, and particularly to that of Plato. There is evidence from his fragmentary papers that at this time he was engaged in particular with the 'Phædo,' and there too mostly with the

[1] [Spinoza died February 21, 1677; the 'Ethics' was published before the end of the same year.]

interesting contrast drawn by Socrates between the mechanical view of nature of Anaxagoras and the teleological view, which not only adapted itself to ordinary speech but seemed necessarily involved in the conception of a supreme ideal good.

This period of Leibniz's work may certainly be described as the turning-point. His new philosophical conception, which sums up a number of separate lines of reflexion, did not appear, at all events with any definiteness, till about 1684-86; and it has to be added that the new philosophical idea was never systematically worked out by Leibniz. No doubt the main reason for this is to be found in the enormous varied activity of a public kind which fills the life of Leibniz from 1676 on to his death. In all the great movements of the world of religion and politics he shared largely; expended infinite time and energy on the perfectly hopeless task of striving to reunite the Protestant and Catholic churches; laboured with greater success to bring about, by the foundation of academies of science in the capitals of Europe, a kind of community of learned men; and was the first to project what is even yet incomplete — a detailed and comprehensive history of the fortunes of the various European states. His public work, indeed, would have amply occupied the energies of a more than ordinary man. It is not surprising, therefore, that the philosophical writings of these later years are fragmentary, that the most important points are often advanced in occasional correspondence, and that the most condensed statement of his views requires for its elucidation reference to a variety of incomplete sketches and plans of undeveloped works never carried out to completion.

In dealing with Leibniz's philosophy there are two ways in which we may proceed: either we may begin by stating the relatively more systematic fashion in which the central conception receives its development, and then go on to trace

the connexion of this central idea, and the answers it yields to philosophical questions, with antecedent work, including therein the earlier essays of Leibniz himself; or we may reverse the process, and attempt to trace through Leibniz's philosophical career the gradual approach to the central conception, the gradual perception of difficulties in antecedent views which necessitated the new conception, and the kind of answer which the new conception proved capable of giving. I shall select the second of these methods, and proceed, in the first place, to give an account of the formation of the central idea of Leibniz's philosophy.

I. Formation of Leibniz's Central Idea.

There are two quite distinct lines along which Leibniz's reflexion may be said to have proceeded in the formation of this central idea: first, the more purely philosophical; and secondly, the mathematical or physical.

1. *The more purely Philosophical Inquiry.*

As regards this line of development, it is not without interest that Leibniz's academic thesis of 1663 should have been on a problem, which was well-worn in scholastic discussions, but which modern thinking, wisely enough, has steadily tended to dismiss from the region of profitable discussion. His thesis is 'A Metaphysical Disputation on the Principle of the Individual.' The problem of individuation, as it was called in scholastic language, had naturally its significance in the discussion respecting the real nature of generalities, universals, or essences, and no doubt as a problem it connects itself directly with the great system of ancient philosophy—the Platonic. Platonism, whether in the form in which it is expressed by Plato, or in the modified form of Aristotle,

afforded no answer to what seems at least a possible question, What constitutes the individual? The universal or essence, it may be supposed, has its explanation, but the individual, which is explicitly distinguished from the universal, cannot be explained in terms of the universal. The absolute reality may require no explanation; the relative forms in which it manifests itself may at least be held to require some explanation. The essence or absolute reality seems at least to be wholly unrestricted by the circumstances of space and time. These very restrictions, if they do not constitute individuality, seem connected with it, and it can hardly be thought illegitimate to demand an explanation of them.

Leibniz in his first thesis certainly makes little advance beyond the position indicated already by some of the schoolmen, that individuality was not an explicable characteristic because it was, if not synonymous with, at least necessarily connected with existence: there are no existences except individuals. The individual exists only in being individual. Accordingly Leibniz extracts from this view the rather significant conclusion,—Matter (a sufficiently universal term) has of itself (*habet de se*) *actum entitativum*[1]—activity which constitutes being; that is, he is approaching the conception of the individual existent as in its nature an individual agent, —call it a force. It cannot be said that the conception is clear in his mind, but none the less its presence deserves to be signalised, for the developed philosophical thought of Leibniz is in fact a reproduction, an amplification, of this first crude definition of the individual.

The following years of Leibniz's life, so far as philosophical development is concerned, present to us two lines of speculation, each of which carried him forward in the direction of his later doctrine. The first of these is represented

[1] [Opera, ed. Erdmann, p. 56; Philosophische Schriften, ed. Gerhardt, iv. 26.]

by his essays in the theory of numbers, and in a certain formal logic which he connected intimately with that doctrine. The other and later concerns the general principles of mechanics.

Without entering on the details of his treatment of the doctrine of numbers, we must observe that consideration of these numerical problems gradually cleared up in Leibniz's mind the characteristics of a quite general method of investigation. In the theory of numbers he tries to determine in the clearest and most distinct fashion, and to provide with appropriate symbols, the simple elementary data, and the simple elementary operations to which these data may be submitted. A combination of analysis and synthesis appeared on the whole the necessary and complete method for laying out the whole system of numbers. A perfectly similar method seemed to him applicable when the data and operations were not numerical but the terms with which our thinking is occupied. He therefore proceeded rapidly from the theory of numbers to a first essay in the field of symbolic logic. Omitting also the details of his logical view, we may note that the attempt to systematise the processes of thinking, to reduce them to an enumeration of simple terms, a determination of the operations to which these may be subjected, and the development of all more complex thoughts thereby, led him to a distinction afterwards prominent in his general philosophy. There appears there for the first time, in a very formal fashion, the all-important distinction drawn later between truths of reason and truths of experience.[1] Moreover the peculiar character which he throughout attached to truths of reason is here to be found advanced in extreme fashion. All truths of reason are identical propositions. Given the simple terms with which our thought has to operate, all conclusions that can be rationally

[1] [Opera, p. 43*a*; Schriften, iv. 41.]

produced, or demonstrated, can be shown to be traceable back to elementary propositions which are identities. Moreover, truths of experience are declared not to differ in kind from truths of reason. The difference is only in degree of complexity. Truths of experience, empirical propositions, bring together terms so complex that the analysis requisite in order to trace them back to ultimate identities may be for the human mind infinite. In respect to them, therefore, it may be impossible for us to obtain clear demonstrative knowledge. We may have to content ourselves with estimating as best we may the degree of probability with which any one of them may be regarded as following from ultimate or identical propositions. To an infinite intelligence analysis would be unnecessary, and all truth would lie clear before it in the form of identical propositions.

Naturally enough Leibniz's attention was drawn to the character of these simple terms which play so important a part in his view of knowledge; and his consideration of them leads him to distinguish, very much after the fashion of the old Aristotelian logic, between real and nominal definitions.

A definition is real, according to Leibniz,[1] in two cases: either (*a*) when we can show that its content is possible, or (*b*) when experience actually gives us what corresponds to its content. A definition is nominal when it does nothing more than assign a meaning to a particular word without deciding the question as to the possibility or actuality of what is indicated thereby. Naturally by these speculations Leibniz was led to contemplate the possibility of a universal language, a code of symbols selected so as to convey completely the simple notions, manipulation of which according to regular laws constitutes our thinking. The process of thinking he evidently at this time regarded as in essence substitution, as in a mathematical equation.

[1] [Cf. Opera, p. 80*b*; Schriften, iv. 424-5.]

2. *The Theory of Mechanics.*

The second line of investigation lies rather farther from our immediate interests; and we need dwell only on two of the general results which followed from it. Leibniz found reason to be dissatisfied with the laws of motion as formulated by Descartes, and in particular with the general principle of the Cartesian Physics, that the quantity of movement in the corporeal universe is constant. It seemed to him necessary to make more clear and distinct what is involved in the conception of quantity of movement. In doing so he was constrained to include as a part of the notion a factor which the Cartesian view of Physics wholly rejected, that of inertia or mass. Descartes' general principle, that extendedness is the whole essence of corporeality, naturally led to the exclusion of mass, and Leibniz was able successfully to point out that the laws of motion of the Cartesian system, by reason of this omission, involved consequences flatly contradicted by experience, and, when fully developed, led to the conclusion that perpetual motion was possible.

He insisted therefore that in the conception of quantity of motion there required to be included the element of mass. When this was done the term which more accurately described the fact was 'quantity of moving force'; and, so far as constancy or conservation of amount was concerned, he showed that the constancy belonged not to quantity of movement in the Cartesian sense, but to quantity of moving force, as he defined it. In this he was right; but the discussion involved the general position that the essence of corporeality could not be adequately defined by the attribute of extension. Descartes had indeed obscurely and vaguely given his opinion that extension was an attribute, but in his Physics he had made no use of the supplementary notion, the substance of which extension

was an attribute, and had employed extension as though it were an independent part of reality. To Leibniz, on the other hand, it appeared that the supplementary notion must be so defined as to give its due rights to the element of mass or inertia, and that this could only be done if it be defined as active force, and that extension, therefore, was rightly to be regarded as a secondary or derivative aspect of corporeal existence.[1] It is rather an expression, a measure of the intensity of the real active force, than an independent characteristic.

This opposition to Descartes in no way implied on Leibniz's part a rejection of the general position that all explanation of change in corporeal nature is to be given in the mathematical, mechanical, way. It certainly implied some rather deep-going differences with respect to the ultimate structure of corporeal nature; but these differences all lie within the scope of the general notion that nature is a mechanical system, for the explanation of which nothing is required beyond the general mechanical principles, the laws of corporeal fact. But the farther we proceed in our reduction of corporeal nature to the general mechanical laws the more pressing becomes the further problem,—how to explain the mechanical laws themselves. Leibniz is far from satisfied with the rapid transition in the Cartesian system from mechanical principles to the will of God. The fact that Descartes, as he had shown, altogether misconceived the true character of the most comprehensive law of nature was enough to show that nothing is gained by appealing at once to the vague and indeterminable notion of the will of God. Leibniz therefore, throughout all his many writings on the general principles of mechanics, is found consistently asserting first, that all explanation of nature is to be given by reference of the particular to the general mechanical laws; and secondly, that these laws them-

[1] [Cf. Schriften, iv. 346, 364, 442 ff.]

selves require a foundation in metaphysic:[1] there being some more general treatment of existence possible from which an explanation may be given of mechanism itself.

Both lines of investigation, as one can see, force Leibniz to the consideration of those more general aspects of existence; and it is probable that his detailed and minute study of Spinoza supplied the motive for the advance in clearer definition of his ideas which we find in the last of the writings which precede the formulation of his fundamental ideas. This writing is in itself so interesting that it is worth treating in some detail. It is a correspondence between Leibniz and Antoine Arnauld, and falls within the years 1686-90.

3. *Correspondence with Arnauld, leading to the Formulation of the Central Idea.*

In February 1686 Leibniz sent to Arnauld a condensed statement of certain general positions to which his reflexions had led him. Among these general positions there are several which contain, though in less definite form than afterwards commended itself to Leibniz, the salient doctrines of his developed system. One proposition, in particular, in this summary attracted Arnauld's attention.

In this proposition the very definite view is expressed that in the notion of each individual thing there is included all that happens to that thing.[2] Arnauld was naturally struck by what appeared to him the dangerous character of this position, and at once raised the doubt whether such a doctrine

[1] ["Although all the particular phenomena of nature can be explained mathematically or mechanically by those who understand them, yet nevertheless the general principles of corporeal nature and of mechanism itself are metaphysical rather than geometrical."—Schriften, iv. 444.]

[2] [Briefwechsel zwischen Leibniz, Arnauld und dem Landgrafen Ernst von Hessen-Rheinfels, ed. Grotefend (1846), pp. 2-3; Philosophische Schriften, ed. Gerhardt, ii. 12.]

did not run counter to all conceptions of the freedom of man.[1] Leibniz replied that the development of the nature of a thing must evidently be regarded as in accordance with that nature, and that therefore if the nature of the individual be such that its action, its development, is to be of the kind we call free and contingent, it is equally in accordance with the general principle. The foreknowledge of God does not render the actions of His creatures necessary; for there is nothing to prevent the divine will from constituting a creature whose actions are free or unconstrained. The general position only involves the conclusion that whatsoever is included within the actions and the fortunes of the individual is included in its notion, and is but the development of that notion.[2]

Arnauld, acknowledging so far the merits of this answer, proceeds to the more general doubt. Is it conceivable that in the notion of a single individual, for example, of Adam, there should be included all that happens, all the series of circumstances which, if we are logically accurate, must include not only what is personal to Adam but what happens to all his posterity?[3]

To this doubt Leibniz replies by pressing a peculiar logical doctrine which at once recalls his previous view in the essays on numbers and on logic. The predicate of any true proposition inheres in its subject. That is to say, as Leibniz interprets it, whatever can be asserted truly with respect to any individual is based on the analysis of the notion of that individual; the predicate can never be added on *ab extra* if the proposition is true. The subject therefore, the real subject, must be regarded as itself containing that which is expressed in the predicate.[4]

Arnauld acknowledges the validity of this general position,

[1] [Briefwechsel, pp. 5-6; Schriften, ii. 15.]

[2] [Briefwechsel, pp. 9-11; Schriften, ii. 19-21.]

[3] [Briefwechsel, pp. 17-18; Schriften, ii. 27-28.]

[4] [Briefwechsel, pp. 34, 48; Schriften, ii. 43, 56.]

and so far has nothing to oppose to it. He hesitates, however, with regard to its scope. It seems to him legitimate so far as regards what the old logicians called the essential or constitutive attributes of the real subject and also its properties, but he is doubtful of its truth when the accidental properties or extraneous relations are taken into account.[1]

In dealing with this hesitation Leibniz is compelled to advance a step farther—and a very important step—for he now insists that there is no distinction of any moment between the so-called internal and constitutive and the so-called external and accidental properties. All that happens to an individual thing, whether in the way of a natural consequence of its inherent marks or as a result of its concomitance with other things, if the proposition is true assigning that as predicate to the subject, must be said to inhere in the subject.

Relations are not in one sense external to the related substances. In so far as the relation in any way concerns the substance related, it must do so by reason of an affection or mode of existence of the substance itself. Only on this account can substance be said to be related, and if so then that affection which expresses the relation must be contained in the nature of the related substance. In this statement he comes as near as possible to his central idea of the single substance which is expressive of the whole universe.

From the point of view of the general position which is accepted by both Leibniz and Arnauld, the original statement that in the idea of the individual is contained the whole series of events and changes constituting its existence, requires a certain modification. The formation of the idea of any one individual is dependent on the formation of the ideas of all the rest of the universe; the idea of each

[1] [Briefwechsel, p. 57 ff.; Schriften, ii. 63 ff.]

individual implies or, more exactly, contains in it the ideas of all the rest of the universe.[1]

Of this modified conception, the objective counterpart is the connectedness of all things in the universe: no one thing is, or can be conceived to be, isolated. Of this objective connexion of things the implication again is that each unit of the whole is in itself a complete world. It exists, to use Leibniz's own words, just as if there were only itself and God in reality. Its completeness—the other side of the conception of the connectedness of all things—thus carries us to two new terms, to two new and fruitful ideas in Leibniz's system. Each unit, each substance, 'expresses' in its own way all the rest of the universe; and, in the second place, the development of each unit, each substance, is, so far as reference to God is excluded, independent of the development of all the rest. Substances do not act upon one another: they are only 'concomitant.'

Arnauld not unnaturally found some difficulty in both these highly general conceptions—that of expression and that of concomitance. The discussion of these may be followed out separately.

Take first Concomitance. The salient instance of such concomitance is naturally that of soul and body. According to the view put forward, soul and body are wholly inde-

[1] [Briefwechsel, p. 63; cf. p. 71 ff. Schriften, ii. 74, 75; cf. 68 ff.: "The nature of every substance involves a general expression of the whole universe, and the nature of the soul contains in particular a more distinct expression of what now happens with respect to its body. This is the reason why it is natural for it to register and have knowledge of the accidents of its body by its own accidents. It is the same with respect to the body when it accommodates itself to the thoughts of the soul. . . . All this is but the consequence of the notion of an individual substance which contains all its phenomena, so that nothing can happen to a substance except what is produced from its own nature, but in conformity with what happens to another, although one of them acts freely and the other without choice. And this accord is one of the most beautiful proofs that can be given of the necessity of a sovereign substance the cause of all things."]

pendent; therefore, first, no change in the one is the cause of any change in the other, and, secondly, any change in one of them, any event which forms a link in either series, is the consequence, the sequel, of what has preceded in that series. Leibniz does not here, nor does Arnauld, raise explicitly a question as to the meaning of this term 'consequence of' or 'sequel of.' It is clear, however, that, interpreted in the light of Leibniz's general principle, it cannot be taken to mean that the one event is caused by the other. Rather we ought to understand it as indicating the kind of connexion required in order to make it possible that, if our intellect had grasped the preceding events, it would be able to infer the subsequent event as a necessary logical consequence of them. The relation is not one of cause and effect. The sequence is due to the plan of development which constitutes the nature of the whole thinking subject. If we knew the thinking nature we should see the necessity of this consequence; if we knew the thinking nature thoroughly we should be able to see the necessity of any particular event following the whole of preceding events. This, again, is connected with Leibniz's doctrine of latent modifications of mind.

As against the general doctrine of concomitance in its application to soul and body, Arnauld advances the two characteristic instances: one in which a sensation, as that of pain, follows an alteration of the body, a cut or prick on the arm; the other in which a movement of the body follows a resolution of the soul.[1]

Taking the first case, Arnauld's objection to Leibniz's view that the sensation of pain is only concomitant with the injury to the body is twofold. First, he thinks it incomprehensible that the sensation of pain should simply follow from what has preceded in the soul itself. I suppose he

[1] [Briefwechsel, p. 79; Schriften, ii. 84.]

means that somehow there is requisite a reference to the concomitant alteration of the body, and this reference can hardly be contained in the previous states of the soul itself. Secondly, if it be maintained, 'as St Augustine seemed to think,' that the feeling is dependent on or involves a knowledge of the body, then there is introduced into the explanation the very relation which is denied, for in what way could the soul have this knowledge of the change in the body? Moreover such an explanation seems to invert the real order of the facts. It is not the case that the soul first apprehends the evil condition of its body and then feels pain thereat. Rather it is through the feeling of pain that it becomes aware of the change for the worse in the state of its body.[1]

In reply to this Leibniz has to give a much more definite interpretation to his term 'expression,' and, further, to interpret expression in the case of the soul by drawing a distinction between processes in the soul of which we have consciousness and processes which are latent or unconscious.[2]

'Expression' is taken to mean the constant and determinate relation between any two units of reality.[3] One thing expresses another whenever it is in any relation to it. Now, from the point of view of each unit, such relation cannot be external. A relation from the point of view of each unit must signify, must be, something in the unit itself. Thus, for example, in the corporeal universe all bodies are in relation to one another, say, the relation summed up in the term 'gravitation.' It is only to the outside observer that this relation appears as quite external to the related

[1] [Cf. Briefwechsel, p. 102; Schriften, ii. 106: "How could my soul give itself a feeling of pain when some one pricks me in my sleep? It would be necessary for it to know that some one pricked me, instead of only acquiring this knowledge through the pain which it feels."]

[2] [Briefwechsel, p. 108 ff.; Schriften, ii. 111 ff.]

[3] [Briefwechsel, p. 109; Schriften, ii. 112.]

bodies. In and for each of them the relation exists as a specific modification of them, a state of stress and strain which varies with the changes of the external relation; and, if we are true to our idea that the corporeal system is a whole of which each part is determined in relation to every other, then, whether we can disentangle the internal expressions in each unit or not, we must admit that they are to be recognised in the total state of each body.

This reading of the term 'expression' may be applied to the case of the soul. Like any other unit, the soul expresses the whole universe; but each unit expresses the universe in accordance with its own nature, and Leibniz, let it be remarked here parenthetically, accepts, perhaps wisely, the principle that it is impossible for two exactly similar or two identical individuals to exist in the universe.[1] The expression on the part of each unit will therefore be specific, individual; and certainly that expression may be allowed to vary from unit to unit according to the extent to which its several components are disentangled from one another and constitute facts for the individual itself. In the case of the human soul such disentangling is possible to a limited extent; but a large part, perhaps relatively the larger part, of the changes in it which constitute its expression of the universe are not disentangled, are latent.

If, now, we apply this new conception of latent modifications of mind to the particular problem, there are two things to be said: first, that, in consequence of the latent or unconscious character of much in the soul, it is impossible for the subject to appreciate the real dependence of the sequent modification on what has preceded; but, secondly—and this is more important if we keep in view the whole implication of expression—we are bound to say that the soul corresponds

[1] [Cf. Monad., § 9; Nouveaux Essais, II. xxvii. 3; Lettres entre Leibniz et Clarke, Leibniz's fourth letter, § 4.]

in its total state to any change in the outer universe, and that therefore, when it feels pain concomitantly with an injury to the body, there may very well go along with the feeling of which we are conscious the other modifications which constitute knowledge of the change in our own body. Arnauld, as we saw, put forward the difficulty that the soul could not know the external change or, at all events, that this knowledge of the external change did not precede the feeling. Leibniz answers, in effect, that 'knowledge of the external change' is an ambiguous expression, that there may be concurrently with the feeling of pain sensations of which we are at the time unconscious, but which later, rising to consciousness, enable us to know, in the ordinary sense of that term, the external change.[1]

Each part of the whole, according to Leibniz, expresses all the rest, and by expression we have seen that he meant having in itself a modification which depends upon the relation in which it stands to all else in the universe. But now, underneath this explanation, there lies the assumption that that which is modified, which expresses in a variety of ways all its surroundings, is itself a unity. It will appear, later, that Leibniz does in fact proceed on the basis of this rather direct reflexion, that wherever there is a compound, a composite, there must be simple units making it up. In his correspondence with Arnauld the more important question arises—In what sense is this unity of every real in the system to be understood? Arnauld's question is not itself very much to the point, but it suggested a difficulty with regard to the real unity of what is called corporeal being.

Arnauld, accepting the general idea of expression and the principle of concomitance, finds some difficulty in accommodating to this view[2] the infinite divisibility of extension,

[1] [Cf. Briefwechsel, pp. 86, 109-10; Schriften, ii. 91, 111-12.]

[2] [Of simple units as the ultimate constituents of the composite.]

which naturally, being a Cartesian on the whole, he took to be the essence of body.

Leibniz, for his part, is perfectly ready to admit that, in so far as the characteristics of body are concerned which form the matter of mathematical and mechanical treatment, they do not correspond to unity.[1] He insists, however, that there must be admitted in respect to bodies, and as their more important feature, that which lies outside of figure, movement, and extension, namely, force. But, again, the abstract conception of force is of little avail, does not enable us to secure the real unity that we now seek; and Leibniz goes the length of maintaining, in a sense of his own, a proposition of the early Greek metaphysic, that unity and reality are one and the same.[2] To be one and to be real are identical expressions. If, then, the forces which are supposed to constitute reality in bodies are to be true units, they must be conceived as of such a nature as to render possible the combination of multiplicity in unity,—multiplicity, for each real expresses in varied ways the rest of the universe, and has a place in that universe only through that expression; and a unity of that very manifold, for otherwise we could not say that it expresses the variety of things.

Consequently, since our only type of such conjunction of the manifold in one is that furnished by the soul, we are bound to proceed to the full length and maintain that if bodies have reality at all it is by reason of the existence, underneath the mechanical aspects they present, of veritable

[1] [Cf. Briefwechsel, pp. 74-5; Schriften, ii. 72: "Every extended mass may be considered as composed of two or a thousand others; . . . so that one can never find a body which can be truly called a substance. It will always be an aggregate of several substances, or rather, no real being at all, since the parts composing it are subject to the same difficulty. . . . Extension is an attribute which cannot constitute a complete being; no action or change can be derived from it; it expresses a present state only—not the future and the past, as the notion of a substance should do."]

[2] [Briefwechsel, pp. 91-3; cf. p. 81. Schriften, ii. 96, 97; cf. p. 86.]

unities which are psychical or of the nature of souls. Leibniz, therefore, is on the verge of declaring that all the features of the corporeal world which are sufficiently accounted for by mechanical principles—let us call it for short the mechanical aspect of nature—is nothing but appearance. In his correspondence he hardly goes the length of defining this semi-existence of the mechanism of things. He will only say that, if there were no *real unities* in nature, the mechanism of nature would be nothing but imagination, nothing but 'a well-ordered dream.' [1]

Not unnaturally Arnauld exhibited some astonishment at the transformation of nature into soul; and, as Leibniz in the course of his exposition was led to shadow forth certain consequences of his view, namely, that all real unities are indestructible, imperishable, Arnauld raises difficulties with regard to the continuance of the souls of animals: taking, of course, the instance of the ram which Abraham sacrificed in place of his son.[2]

To all such difficulties Leibniz returns the answer that we are far from being thoroughly acquainted with the mechanism of nature itself, that we are always inclined to interpret empirical facts too absolutely, that the principle of life may very well be conserved even if the vehicle be not the organised body with which it is usually connected. Moreover he brings to his aid such partial results as were then being yielded by the first applications of microscopic researches into life's problems, and refers to the views of Dutch and German biologists, who were engaged in pointing out the minuter forms of animal life and giving for the first time an insight into the peculiar conditions under which these minuter forms are presented. On the whole, looking to these natural phenomena, Leibniz is inclined to think that there is abundant

[1] [Briefwechsel, p. 93; Schriften, ii. 97.]

[2] [Briefwechsel, p. 105; Schriften ii. 109.]

confirmation in experience of the view which seemed to him necessary on the ground of general philosophical principles. In his own way he is sketching a theory of animal life which, in some salient features, closely resembles much recent biological teaching—that, for example, of Weismann.[1]

Thus, then, Leibniz reaches a tolerably compact and systematic view of the whole of existence. "To resume my doctrine," he says, "I maintain that every substance comprehends in its present state all that has passed and that is to come; that it expresses the whole universe according to its point of view, nothing being so remote from the rest that it is not in connexion (*commeree*) with it; that it expresses more immediately the relation in which it stands to the parts of its body; and that consequently nothing happens to it except what is developed from its own nature and in virtue of its own laws, there being always assumed the co-operation (*concours*) of God. . . . The obligation imposed from the beginning upon each substance to express naturally its relations to all others constitutes what is called the action of one substance on another." [2]

According to the nature, the inner structure of the substances, is the kind of expression which they give of the universe. Intelligences, or souls capable of reflexion and of the knowledge of eternal truths and of God, have privileges which exempt them from the revolutions, the movements of bodies; all things are made chiefly for such intelligences; they form together the republic or state of the universe of which God is the monarch; and the more things are known the more they are found to be conformable to the precepts of perfect wisdom.[3] It is on these lines that Leibniz

[1] [Cf. Briefwechsel, p. 113 ff.; Schriften, ii. 116 ff.]

[2] [Briefwechsel, pp. 123-4; Schriften, ii. 126.]

[3] [Briefwechsel, pp. 122-3; Schriften, ii. 124-5.]

finds a solution for the antithesis between mechanical and final causation, the influence of which upon his thinking has already been noted. Put briefly, one may say that, according to him, the more developed our knowledge the more we understand the plan of the universe, nay, even, understand that its arrangements constitute a plan, and the more clearly therefore we apprehend that mechanism is in place only as the arrangement of the laws of the subordinate instrument. In this way also Leibniz comes near a general answer to the problem his physical researches had brought before him. The principles of mechanics, he was then led to say, have their root in metaphysics. The metaphysical principle is evidently his conception of the plan which the whole universe is designed to realise; the mechanical principles depend thereon as formulating the conditions under which the realisation of that plan is brought about.

II. Review of Leibniz's Philosophy.

1. *Phenomenal Existence of Perceived Things.*

The Monadology, written in 1714, contains, in a series of succinct propositions, a systematic account of Leibniz's doctrine and of its leading applications.[1] The portion of the theory which receives least recognition in the Monadology is that which concerns what we must call the phenomenal existence of what is apprehended in sense-perception. It is, of course, evident that for Leibniz the reality of perceived things cannot possibly mean a mode of existence characterised by the features which these objects seem to possess as perceived

[1] [This account was followed by the author in his lectures, in which he translated and commented on the Monadology paragraph by paragraph. This portion of the course is omitted here, as the Monadology is now easily accessible in English in Prof. Latta's edition.]

by us. In particular that characteristic of extendedness, in which the Cartesians had found the essence of corporeality, stands in sharp contradiction to Leibniz's notion of what constitutes reality. Not only therefore must he say, as he does, that the extendedness of bodies is a derivative aspect consequent on the fundamental feature of reality—active force—but, when the isolation and self-involution of each real existence is taken into account, extendedness can no longer with accuracy be designated a property or attribute of any kind possessed by real objects.

Extendedness, like every other manifestation of reality, must be interpreted from two points of view—first, from that of the individual monad, and, secondly, from that of the universe of monads. From the point of view of the individual monad extendedness can only signify a feature noted and distinguished in the inner life of the monad, in its developing consciousness, as characterising one portion at least of the contents of its inner life. Whatever it may signify further, for the monad it can consist only in an aspect of its own inner nature.

Looked at from the point of view of the universe, this view still holds, with the addition required in consequence of the general principle that each monad in its development is representative of the whole. If, then, the life of the individual monad consists in part of the representation of extension, it indicates that, in this way, the monad represents a coincident and corresponding series of changes in the lives, the inner natures, of the other monads.

The same explanation applies to a more complex character by which we are in the habit of defining the external corporeal world. It is an orderly, regular system of changes among extended things. On account of this order and regularity we are in the habit of according to the supposed things a mode of existence quite independent of the per-

ceiving mind; but, from Leibniz's point of view, this apparently independent world of external fact is nothing but the orderly arrangement of the states of the monad itself.[1] The objective character, as we call it, indicates not separate existence on the part of these supposed things, but the orderly and connected character, which in its turn indicates that each monad in apprehending is in a definite and determined relation to all other monads. The external world, then, as Leibniz occasionally called it, was *phenomenon bene fundatum*,[2] phenomenal merely, but with a sound or objective foundation. It is with some justice, then, that Leibniz's general view is described by the term Intellectualism: for it is essential that the character of the real should be that and only that which admits of distinct conception. It is therefore wholly independent of perception. The reals are defined by intellect, not by perception.

2. *Systematic View of Reality.*

We may now put together rapidly the characteristic doctrines which make up Leibniz's systematic view of reality; for, in the end, his philosophy has the genuine metaphysical note: it is an attempt to define exactly the significance of the notion of real existence. Such a definition can never be given satisfactorily without carrying out the definition and seeing how it applies to the recognised and familiar problems of philosophical speculation.

Leibniz's metaphysical doctrine, then, may be put thus. The characteristic of real existence is defined by the two marks—unity and activity.[3] To exist and to be one, as Leibniz insists, come to the same thing; and a single existent can

[1] [Opera, pp. 682*b*, 752*a*; Schriften, ii. 450-1, vii. 363-4.]

[2] [Opera, pp. 436*b*, 680*b*; Schriften, ii. 306, 435.]

[3] [Monad., §§ 1, 11; Principes de la nature et de la grâce, § 1.]

only be represented through the notion of activity. The atom no doubt has certain resemblances to an ultimate existent, but just because of its extendedness it lacks the essential characteristic of unity. The atom is not a true unit.

In a similar way we cannot accommodate, Leibniz thinks, to our notion of real existence the character of universality; to be one is at the same time to be individual. Generality, universality, are secondary marks. Now it is impossible to avoid the conclusion that, in so formulating his fundamental conception of real existence, Leibniz takes for granted without the consideration it deserves the very important principle of multiplicity or plurality. This principle presents itself in more than one way. The individual is individual not only by his positive qualities but negatively as being exclusive: the monad as force exists not only in respect of its activity, its expansiveness, but just as much by reason of its passivity, by its resistance. An elastic force, with which Leibniz frequently compares the monad, can only be represented by the twofold conceptions of active and of passive forces. One monad seems to demand a world of monads with which it is in some way in relation, for only so is its unity possible. It is quite true that Leibniz later introduces as a possibility the relation of the individual monad not to other monads but to the extra-mundane absolute substance, God, and that he also attaches to this extra-mundane substance the same characters of existence with which he first defines the monad. But it is very obvious that there is a complete want of coherence between the two conceptions: that, while Leibniz is dealing with the monads and their system, he is compelled to represent God as extra-mundane, as calling the realm of monads into existence and establishing their order of relation; while, on the other hand, when he approaches the difficult problem of defining the mode of existence of God, he has to regard the absolute substance as being just

the monad freed from limitations. But no one is better aware than Leibniz that the principle of continuity implies that there is no transition of kind, and that, therefore, however infinitely near to perfection the nature of a monad might approach, it is a breach of continuity, and so intellectually unjustifiable, to assume that limitation has completely vanished.

To start with the assumption of multiplicity as equally in the nature of things with the unity of the really existent[1] is to determine in one way most of the problems which may be raised with respect to the general conditions of existence; for obviously, since unity is a purely intellectual conception, not involving any reference to space and time, in fact repudiating any such connexion, the real must in like manner preserve its singleness of being without undergoing any change by reason of action upon it from any other. If, then, anything happens at all in the universe of real existence—and such a general condition Leibniz, like others, at once assumes—it must be explicable in such a manner as to preserve the two features—permanent unity of each existent, and coexistence of the manifold of units. Now Leibniz's Pre-established Harmony is nothing but the developed intellectual conception of what is required in order to evade a contradiction between the notions of something happening and the unity of each real existent making up the manifold or plurality of monads. The happening of anything is just the development of the inner nature of each real existent, a development which, though in one sense peculiar to each individual, cannot be to the exclusion of the development of other individuals: what is true of one is true of all. Each develops in its own way, and their developments, by being in relation to one another, bring about what is interpreted by each monad as interaction, action by itself or action on the part of others.[2]

[1] [Monad., § 2.]

[2] [Monad., § 51 f., 56.]

The Pre-established Harmony is thus seen to be a much wider conception than that form of it through which it is generally explained. It is not in any way peculiar to soul and body that they should be in such accordance or concomitance with one another that their changes seem to indicate action of the one on the other. This is true of soul and body only because it is true of the monads at large. The fundamental condition of change is satisfied by the conception of development as constituting the life of the monad, and of conjoint development, correlated development, as expressing the inter-connexion of the monads with one another.

It falls next to be considered how development is reconcilable with the fundamental feature of the monad—its unity. The monad must evidently, with respect to its nature, be such as to accommodate both characteristics, unity and multiplicity. Obviously it cannot for such purposes possess any spatial characteristic. It is quite impossible for us to find a real unity in what exists as extended. However we regard extension, whether in its most abstract sense as merely that by reason of which a place is occupied by anything, or in the more concrete sense as the manifestation of the real nature of activity in which is asserted the claim of the really existent to a position—in either case divisibility, in the one infinitely possible, in the other infinitely realised, is a consequence of extendedness. A true unit must be unextended, and yet must combine a manifestation of its own nature in unity. Leibniz, without much further investigation, describes the state in which a manifold is reduced to unity as perception, and therefore identifies the inner nature of the monad with what constitutes the inner life of the soul.[1] Internal experience gives us at least one example of the kind of nature

[1] [Monad., § 14.]

which is required in order to constitute the unity of a real existence. Moreover, in inner experience we find that which serves as explanation for the continuous change already recognised as belonging to the nature of the monad. Such change cannot be movement and cannot be explained mechanically. It is evidently, Leibniz thinks, an inner tendency, a striving, the terms of which are themselves perceptions.[1]

Again, a change which is not explicable mechanically but only as the manifestation of a tendency is just an illustration of what we call development as opposed to mere produced modification. The tendency of the monad, the manifestation of its striving force, can only be interpreted as the way in which the monad evolves—makes explicit what is involved and implicit in its nature. The life of the monad, therefore, is nothing but the development of its own nature, and, as the series of its changes is not mechanically induced from without, but springs from its tendency to realise itself, it is an illustration of final as opposed to efficient or mechanical causation.[2] The whole development of the monad is a striving towards the realisation of an end, an end, moreover, which is not outside of itself but immanent.

In order to apply this conception of development completely, it is necessary, of course, to extend widely the significance of the term 'perception.' Our inner experience no doubt supplies us, in the unity of our own consciousness, with a very explicit form of such perception, but, in accordance with the quite general principle of continuity, we must assume that the higher grade represented in consciousness is connected with an infinite gradation of less developed forms;[3] and perhaps Leibniz would have us to understand that what characterises the higher type, the unity of self-consciousness, becomes possible only because the lower grades have all of

[1] [Monad., § 15.] [2] [Monad., § 79.] [3] [Monad., § 19 ff.]

them as fundamental characteristic the combination of a manifold in a unity.

The inner nature of the monad, then, however little developed it may be, is psychical in character; and on the whole the distinction between what we call a body and what we call a soul would be adequately given by pointing to the differences in the kind of psychical life involved in the two cases. Leibniz in his earlier writings used with respect to *corpora* the remarkable expression that each body might be regarded as a momentary or instantaneous mind:[1] meaning by that not only that its real existence was of the nature of mind, but also that the perception constituting its state at any moment was so undeveloped that it did not connect itself with the other states of the same unity in the manner in which by memory, and still more by thought and reasoning, the successive states of a mind are connected with one another. Each perception, so to speak, stands isolated.

Perceptions, then, of all degrees of distinctness form the inner states, the modes of existence of the monads. Leibniz is in this way led to introduce into psychology not only the conception of states of mind which are latent or unconscious, but the more important idea of the dependence of the higher forms of mind—the conscious—on simpler processes which are psychical in character. It is true that the view is only sketched by him; it cannot be said that he has contributed much to clear up the difficulties at the two critical points, first, the transition from the sub-conscious to the conscious, and, secondly, the transition from the conscious but mechanically connected stream of mental states to that in which self-consciousness, reflexion upon psychical states, is the distinguishing mark; but the hints he offers are often ingenious and capable of being utilised apart from his general theory. Thus Leibniz repeatedly lays stress on the complexity in the

[1] [Theoria motus abstracti (1671); Schriften, iv. 230.]

content of every conscious state. Further, his principle of continuous development cannot be regarded as satisfied by the broad distinction between consciousness and self-consciousness. Some intermediate stage, which we might for the moment describe as the sense of individuality which is not reflective in character, must be recognised. This intermediate stage, which we might perfectly well assign to animals also, has for its correlate the extended in space.[1] For it is implied in Leibniz's general view that, as extension is the simplest manifestation of activity, so the representation of extension is among the simplest forms of the inner life of each monad. All its higher activities of mind are based on these simpler representations of which apprehension of the extended is the most important.

This conception of development enables Leibniz to place the problem of the origin of knowledge in a new light.[2] He will accept neither the empiricism of Locke nor the rationalism of the Cartesians. Ideas as little as anything else are given to the mind from without. Nevertheless, as Leibniz is ready to admit, the whole Cartesian theory of innate ideas is open to Locke's criticism. It is not the fact that the soul begins its development with these highest generalities; it only reaches them gradually. But, on the other hand, it was Locke's error to suppose that such gradual attainment in any way conflicted with the origin of these ideas in the mind itself. The intellect, as Leibniz liked to put it, is not imported from without; it grows up from within.

[1] [The most relevant passage which the editor can find in support of this statement is Briefwechsel, p. 109; Schriften, ii. 112: "Expression is a genus of which natural perception, animal feeling, and intellectual cognition are species. In natural perception and in feeling it is sufficient that that which is divisible and material and is found dispersed in several beings should be expressed or represented in a single indivisible being, or in a substance which is endowed with a true unity."]

[2] [Nouveaux Essais, I. i.]

Finally, the development of the monad naturally leads Leibniz to identify, as we shall put it briefly, in the epistemological sense, the various grades of apprehension. The real nature of that which is to be known being itself non-sensible, its adequate apprehension is possible only in the form of a conception in which are embraced all the details and conditions of the object. These details and conditions are themselves non-sensible; they are logical. The completed knowledge of any object would be the contemplation of the idea of it in its proper place in a connected logical scheme of the ideas of the whole system of which it is a part. The highest degree of distinctness would be attained in this contemplation. Every inferior grade of apprehension is only an indistinct confused manifestation of the same kind; wherefore what we call sense-perception is not distinct in kind from intellectual contemplation. Our perception is but a confused indistinct apprehension of the non-sensible nature of the real thing to be apprehended. Thus our perception of the space-relations of an object is just the confused indistinct apprehension of the logical reasons or grounds, which determine the relation of the monads in such a way that they manifest themselves in the form of space-relatedness. So, in a larger way, the mechanical interpretation of nature, going beyond perception but using as its material perceived relations and objects, is only a confused indistinct apprehension of the intelligible logical connexions whereby at any given moment the nature of the monads is so determined that it manifests itself in the form of mechanism.

3. *Criticism of Leibniz's Doctrine.*

This view of the development of the monad, particularly in its application to the problem of knowledge, compels again a consideration of the question, 'What constitutes

the fundamental characteristic of the external for the monad?' and of the subordinate queries, 'What constitutes the nature of matter?' and 'What kind of existence is allowed to space and time?' We shall find that these questions again confront us with a problem not yet definitely undertaken—'In what sense can composite substances be spoken of in Leibniz's theory?'

According to Leibniz's view the monads, the real existents, have only a qualitative nature. Distinction of one from the other signifies, therefore, a qualitative difference among the monads. Consequently if we are to express the coexistence of the monads in their distinctness from one another, we must do so in terms of quality, not, as is more familiar to our imagination, by the quantitative determinations of space and time. What, then, for each monad is the external to itself? The question is a hard one for Leibniz, who can only answer that necessarily each monad is limited. Moreover its limitation signifies something in its own nature, and that something can only be a degree of imperfection, of indistinctness in its knowledge of itself. A monad cannot know itself perfectly, or it would be a deity.[1]

But is this then sufficient? Is it possible to identify the two notions, indistinctness of self-knowledge and externality to the monad? A negative answer to these questions appears to be justified by observing what constitutes the next step in Leibniz's argument.

A monad that perfectly knew itself would be a pure mind, a completed intelligence; but, says Leibniz, such minds would be without necessary connexion, without the order of time and place; and, again, creatures freed from matter would be at the same time detached from the general order; they would be deserters, as it were. That is, it is assumed that the abstract term 'indistinctness of self-know-

[1] [Monad., § 60; cf. § 72.]

ledge' is identical with the concrete experience—perception limited by the conditions of space and time.

Thus our question becomes, What is the nature of space and of time in Leibniz's view? And to this his answer is definite. Space is not an entity; it is merely the order of coexistence. Time, in like manner, is the order of succession; and he maintains that what is admitted with respect to colour, sound, temperature, is equally valid of motion, figure, extension. Perception of space is for the monad the indistinct confused apprehension of purely intelligible relations—the grounds or reasons which determine the coexistence, that is, the simultaneous relation, of monads to one another.

Is this a possible theory? Is it possible to represent the peculiar character of the space-relation as being merely confusion in our representation of what is purely intelligible? There is always a tendency in the analytical mathematical mode of representing space-relations to overlook the initial element peculiar to space, which is represented only symbolically in our formulæ. We may represent a curve, for example, by a formula in which the symbols seem to have only numerical value, and we might therefore think that the complete nature of the curve is just the numerical ratio which is stated in the formula. But in this we should be in error; we can only translate our formula, and give it a meaning applicable to space, by re-introducing the peculiar characteristic of which we have made abstraction when framing our formula. So, put it as we please, we are compelled to recognise in Leibniz's view a difference which is irreducible between the purely logical relations of the qualitatively different monads and the quantitative and specific relation of position in space. It is always to be remembered that it is this defect in Leibniz's theory which weighs with Kant. The Kantian view of space is directed towards the

mean between Newton's conception, on the one hand, of absolute space as a kind of separate entity, and, on the other hand, the theory of Leibniz, according to which space is merely the confused apprehension of quite logical relations, and in itself not a component of reality at all.

Thus, then, it seems necessary to admit that space and time are not deducible from the abstract conception of qualitative differences among realities; and yet, as Leibniz has allowed, it is only with the help of space and time, and the order which rests upon them, that monads are distinct from one another. This order is, of course, in the more concrete way, the general laws of the physical universe, and therefore involves both matter, as we call it, and mechanical laws.

As regards matter, Leibniz's view is obviously that the material is no more than the restriction imposed on the intelligence of the monad by reason of its original imperfection or limitation. Such limitation comes before the monad in the familiar form of sensations as opposed to intellection or conceptions. Matter, therefore, in the sense of extension, would be rightly enough defined in Leibniz's theory by the formula afterwards employed in a totally different general view by J. S. Mill. It is a 'permanent possibility of sensation.' The material world for the monad is just the orderly connexion of occurrence of its sensations, and its representation of the world contains no more than this order of occurrence among sensations.

As regards the mechanical principles, they are held to be the most general forms of the orderly connexion of sensations. They must be regarded, therefore, not as ultimate truths but as confused representations of an intelligible order other than themselves; and this is what Leibniz has throughout in mind when he insists that the mechanical explanation of things rests on a deeper metaphysical interpretation. But what interpretation is possible?

For there are two things requiring to be explained: first, the general character of the order, and secondly, the peculiarity hardly describable in language, which distinguishes the occurrence of the sensation from the general representation of a possible occurrence.

Now Leibniz's answer, practically the same to both these questions, impresses one as singularly helpless. The mechanical principles, the orderly structure of the external, are explained by the Choice of the Best;[1] and actuality differs from possibility in the region of the monads because the former is the product of the divine volition, that is to say, forms part of what is necessary in order to carry out the chosen best. But obviously this is to give up deduction altogether. There is no intelligible connexion between the mechanical principles and the Choice of the Best; and, when Leibniz is pressed with the question, Why there should be this actual material universe—or, in his words, this kind of restriction on the development of the several monads—his only answer is, In this way the highest possible perfection is attained. It was not remarkable that Leibniz should show himself annoyed by the remark of a correspondent that his theories seemed rather too much made to suit the facts.

It would appear from this consideration that, much as Leibniz disliked the position, the only intelligible interpretation of composition, of the coming together of substances, is to be given in terms of space. Composition is a purely external relation. We can only mean by a compound the coming together in space of what nevertheless preserves separate identity, independence, in its components. Thus there are no really compound substances, and if, in the particular case of soul and body, Leibniz sometimes seems inclined to allow that there is more than the merely external relation of juxtaposition, that there is what he names occa-

[1] [Monad., § 46; cf. Théodicée, § 351.]

sionally a *vinculum substantiale*,[1] a real bond of union, it is necessary for him to interpret that as meaning merely that in the case of monads so connected their developments follow a special related rule or law. Thus, for example, we easily represent to ourselves the composite, the living body, as a system of monads with a certain order of dignity or command, a supreme monad and subordinate monads; but such supremacy or subordination means only, in Leibniz's language, differences in the degree of perfection of the monads; and that they form a system signifies only that their degrees of perfection are in some way specially adapted to one another. That is to say, in the long run we have again to resort to an extra-mundane continuous force which determines the general laws of accommodation among the monads, and also the special case in which a number of monads form a special system.

In strictness, then, there are no compound substances—a consideration which shows that the initial argument in the Monadology is a mere verbal triviality.

This discussion has shown us clearly enough where the irresolvable problem for Leibniz's system is to be found. We may approach it from another side, from the distinction of truths of reason and of fact,[2] or from the distinction between essence and existence.[3] In both cases we shall find a difference recognised for which no explanation in terms of reason is at all possible. Truths of fact, it may be said, resting on the principle of sufficient reason, lead us back ultimately to truths of reason; but that is not Leibniz's view. He is indeed found saying that the difference depends on the finitude of our mind. A proposition of fact may appear contingent to us; but every increase of our knowledge discloses

[1] [Cf. Opera, p. 680*b*; Schriften, ii. 435.]

[2] [Monad., § 31 ff.]

[3] [Monad., § 43 ff.]

grounds for the apparently contingent conjunction, and strengthens the conviction which we otherwise entertain that, could we follow out the whole nexus whereby this atom of fact has a place in the total universe, we should be able to see that the apparently contingent was really necessary. To an infinite mind what we call a contingent proposition would be just as necessary as a truth of reason is to us.

So far truths of reason and truths of fact would be only relatively distinct; for the infinite mind the predicate of any proposition would be seen to form part of the subject. In truth, for the infinite mind, the one subject is the totality of existence which obviously contains every predicate in it. But Leibniz was compelled to introduce an important modification into this view. Let us take the case of the scientific explanation of the changes in the world of external fact, which Leibniz was ready to accept. For a mind which comprehended the general principles of movement, and accepted the mechanical system as a datum, every isolated event would be seen to be a necessary implication of the whole. But we must take into account the qualification. From the point of view of the intelligence which accepts the system as a datum, no grounds for asserting the necessity of its laws are possible. The consequences are necessary only if the system, the structure, be thus and no otherwise. But the question remains, Must the structure be thus and no otherwise? If not, then a loophole is left for the disturbing element of contingency. Such a loophole Leibniz deliberately left. To close it up would have been, he thought, to impose restrictions on the infinite power. The system of things does not follow necessarily from the infinite power, but is the expression of his arbitrary will: for so it must be called, even if its principle be always Choice of the Best. Just at the point, therefore, where the difference between truth and fact is involved, a transition is made from the

principle of sufficient reason to the principle of Choice of the Best. The principle of sufficient reason works perfectly well within the system of abstract truths; but, as soon as the difference between truth and fact is admitted, the principle of sufficient reason yields to that of Choice of the Best, which is required in order to add to truth or validity the element of fact or existence.

In the same way existence involves something over and above essence, and, if the essence be represented as the content of the ideas of the divine intelligence, there is required over and above that an inexplicable act, a fiat of the divine will, whereby from the possibles are selected those which are to become actual and whereby actuality is conferred on them. It in no way clears up this process to emphasise, as Leibniz did, the difference between possible and compossible. There is something almost absurd in the representation of the divine choice as being limited by the compossibility of the parts of the system represented in idea; and, indeed, by following this line, Leibniz would have been forced to a conclusion which he even once expresses but which is not in accordance with his general view—that the ideas, the essences, are in every way independent of, logically prior to, the divine mind.

The principle of Choice of the Best has not only the difficulty of assuming all that needs explanation, namely, the graduated scale of perfection in the ideas, but likewise leaves unexplained what it is that constitutes the difference between even the compossibles in idea and their actualisation. It is a difficulty so persistent in its appearance in Leibniz's doctrine, a difficulty so uniformly felt in all idealist systems, that it is hardly unfair to infer from it that there is something fundamentally erroneous in the line of thought on which Leibniz and other idealist thinkers proceed.

Wherever knowledge is attained it is possible to work back

from the derivative propositions to the rational grounds from which they follow of necessity. Thus ultimately the grounds for all that is known are to be found in certain simple identical propositions. But an identical proposition is not really distinguishable from a notion; according to Leibniz its predicate just states what is already in the notion of the subject. Ultimately, then, the original grounds of knowledge are constituted by a series of simple primitive notions, what Leibniz often called 'prima possibilia.'[1] Of course, in this statement, exclusion is made of the case of contingent propositions. These, we have now discovered, concern existence, and existence is not at once deducible from essence or possibility.[2] In respect to existence and contingent propositions, a ground distinct from the ultimate rational ideas must be postulated, and thus finally, in the theory of knowledge, Leibniz has to recognise a distinction in kind between ideal and real grounds. For although, in certain cases, the analysis of the ground of a contingent proposition may be carried back to simple ideas of reason, this is not always possible, and indeed not possible at all when the distinction between the possible and the actual is the determining character of the given proposition. We shall see later that it was this distinction between ideal and real ground which weighed most with Kant in his pre-critical writings, and which drove him from his original position of general acceptance of Leibniz's doctrine. It seems historically the fact that Kant only by degrees came to perceive that the problem thus forced upon him in Leibniz's philosophy was identical with a problem to which prominence was given in the English empirical philosophy, above all in Hume.

Leaving the theory of knowledge, it only remains now

[1] [Cf. Opera, p. 80*b*; Schriften, iv. 425.]

[2] The fiat of the Almighty has to intervene or supervene.

to notice the position in Leibniz's system accorded to God. So far it appears evident that Leibniz is compelled to accept, under whatsoever abstract phraseology, the familiar doctrine of Creation. It is quite true that it is possible for him to say that, as time is only an ideal aspect of the development of the monads, creation is not a temporal act. Nevertheless the relation between God and the monads cannot be otherwise described than by the notion of creation, in which is involved, first, the externality of the producing agent to what is produced, and secondly, the arbitrariness of the producing act. The monads are called into existence by the Divine Will,—a will which, in one sense at least, must be called arbitrary: for it is not defined by any logical necessity, but by the practical or moral necessity implied in the choice of the best.

It is evident that the more insistence there is on the externality, the supra-natural position, of God in the system, the more impossible it becomes to bring the parts of the whole into a coherent relation with one another. The special difficulties with which Leibniz is confronted are of no interest except as indicating what must follow from an initial incoherence. It is, for example, altogether impossible for Leibniz to offer any explanation of what he undoubtedly assumes, namely, such a relation between the monads and God that the monads represent God. For when the monads are viewed, as they must be, as created in a systematic relation to one another, as having their nature determined in view of the system of which each is part, it follows that their reactions, as we must call them, their representations, are limited to the system of which each is a part. In other words, either we must give up the general interpretation of what is meant by action, or we must refuse to make so absolute a distinction between God and the system of monads.

Again, Leibniz was naturally led in the direction of what

is called Determinism. The nature of each monad which is unfolded in its experiences is a nature determined from the first; nay, it is so determined that Leibniz has often to express himself as though the given constitution had to be taken into consideration by God in order to determine His will in the choice of the best. But this is only to assume as before that the element of limitation requires no explanation, that it is perfectly intelligible that the infinite, God, should contain in Himself and by reason of His infinitude the variety of all possible individuals. No philosophy has ever managed to reconcile these two notions of an infinite power and of an infinite variety of limited individualised expressions of that power. There is the same difficulty in Spinoza, whose infinite substance sometimes appears as mere pure position, with, therefore, no element of negation in it, and sometimes as the infinite variety, the infinite collection of particularised forms conceivable only with the help of the element of limit or negation.

As to the problem of Determinism itself, very hopeless unless properly approached, Leibniz's solution, apart from his peculiar metaphysic, is distinctly helpful, for, on the whole, he must be understood to be saying this: the meaning of the distinction between determined and undetermined is to be settled by appealing to the actual nature of the experience which we call human action; a free act for a conscious being is one wherein the realisation is explained by what the agent recognises as being in or forming part of himself, nor is there any other intelligible meaning in the notion of free action.[1]

The same perplexity that appears in the discussion of Determinism presents itself as fatal to Leibniz's Optimism. The world is the best of all possible worlds. The system of existences is not the only possible system, but it is the selec-

[1] [Cf. Théod., §§ 301, 311.]

tion of those possibles which are both capable of coexisting—that is, are compossible—and in which, taken together, the greatest quantum of perfection is attained. The actually existing system, then, being chosen on the ultimate ground that it realises the greatest quantum of perfection, is the best possible; and this aspect of it must needs be compatible with all such imperfection or evil as is ordinarily supposed to exist.[1] Such evil or imperfection Leibniz regards as of three kinds—metaphysical, physical, moral.

Metaphysical Evil is of two grades, of which one applies indifferently to all the monads, and the other differs from monad to monad. The first is the inherent defect of the monad, which as such has a limitation, a negation, an imperfection. The monad can never perfectly achieve its end. This remarkable proposition Leibniz does not so express. He prefers to say that the monad cannot become God, and that it would become God if it perfectly understood itself; and now, Leibniz proceeds to add, God is not the cause of the deficiency—the limitation or negative element in the monad. God is pure reality, and a negative requires no cause.

As regards the inequality in the degree of perfection of the monads, that is what we call, in more familiar speech, the unequal distribution of good or evil in the lots or fortunes of individuals. Such gradation is not only explicable; it is necessary: for only so can there be realised that infinity of degrees of existence which is required by the principle of continuity. There must be no lacuna, and no two individuals can be identical.

As to Physical Evil, it is itself a subordinate case of that which is explained in the treatment of metaphysical evil. The world which has to be realised is not merely a possible world, in which possibly pain might have held no place, but it is the best world possible, in which therefore there must be

[1] [Théod., § 20 ff.]

taken into account the relations of the parts to one another, and therewith the conditions under which the conjoint development of the several individuals can be realised.

Moral Evil, what is called sin, finds of course its explanation in the doctrine applied in the case of metaphysical evil, that the divine will does not call into existence that which lies at the root of sin, namely, the opposition between the will or liberty of man and the divine order, but simply permits that, because only by possessing such liberty is it possible to secure in the whole system the greatest possible quantum of perfection.

Abundance of general notions and of speculative ideas, but, withal, a certain incoherence of system—these are the features which impress themselves most on us in surveying Leibniz's whole work. Perhaps by these very defects Leibniz has exercised a more fruitful influence in stimulating thought than he would have done by a narrower, more consistent, more systematic, philosophy. The problems of the Cartesian philosophy are certainly carried forward by him to a higher range of generality, applied in directions which bring into relief their deficiencies, and suggest, at all events, the kind of supplement they need.

PART II.

ENGLISH EMPIRICISM.

CHAPTER I.

LOCKE.[1]

We have next to follow out a line of philosophical thinking which discharged a function somewhat similar to the foregoing towards Cartesianism, and in a sense prepared the way for the development of the next great systematic philosophy, that of Kant.

The Essay concerning Human Understanding, in the formulation of its problem, presents an interesting analogy to the later, more systematic inquiry which forms the Critical Philosophy. Locke proposes to approach the discussion of philosophical problems from the basis of an analysis of our ideas.[2] Certain questions, he points out, present themselves for consideration, in discussing which we are led into such difficulties as to suggest that perhaps the ideas we employ are inadequate for the purpose. As a preliminary, an

[1] [Born 1632, died 1704; published Essay concerning Human Understanding, 1690.]

[2] [Cf. Essay, Epistle to the Reader, and Introd., § 7.]

attempt may be made to determine how far it is possible for us to proceed in the determination of any philosophical question, and this attempt may be made by investigating the nature of our ideas and the extent to which, by means of them, we may hope to obtain knowledge. Generally, then, the problem of the Essay is the discussion of the nature of knowledge, its limits and validity; and this discussion has as principle of method the investigation of the way in which the mind, first, comes to be supplied with ideas, and, secondly, uses its ideas. On the whole the analogy is sufficiently strong between such a general problem and that of the Critical Philosophy to justify the claims advanced for Locke, that his work is the natural antecedent of the Kantian theory. The important differences between the two inquiries depend mainly on the different principle of method which each thinker employs, for in the later Kantian work there is a definite and deliberate rejection of the principle of method employed by Locke. It is with deliberate purpose and full consciousness of what is involved that Kant puts aside the psychological method as inadequate for the inquiry to which it had been applied by Locke.

As we follow out the results of Locke's application of his psychological method, considerable justification will be found for Kant's rejection of it. At the same time it may also appear that rejection of the psychological method cannot be quite so unqualified as it was in the case of Kant, and that one of the many unresolved problems in the Kantian philosophy is just the nature and conditions of the very psychological principle which Locke adopted.

Locke's discussion of knowledge, as respects its validity and limits, rests on the account given of the manner in which we come by our ideas. To formulate the question in such a way, to ask how the mind comes to be furnished with ideas, is to put a query that is much more simple in appear-

ance than in reality. It was not without good grounds that Leibniz, in his 'Reflexions'[1] on Locke, expressed the view that the inquiry into the original of our ideas cannot be made a preliminary question in philosophical investigation; for, even if we do not accept Leibniz's special interpretation of the way in which knowledge is developed, we can at least see that the terms of the question which Locke puts may very readily, perhaps must inevitably, conceal much general or metaphysical assumption. It is possible, of course, to say that in framing his question Locke is merely adopting the plain, common-sense, practical point of view; but it ought to be a commonplace requiring no further comment that the plain, practical, common-sense view is invariably saturated with a confused undefined metaphysic. It is perhaps impossible for any thinker to start with the common-sense view, which naturally contemplates an individual mind operated on by external influences, and to avoid, as he proceeds, giving a definiteness and fixity to these crude conceptions which they ought not to receive without further investigation. Undoubtedly Locke starts with the simple representation of a concrete individual mind which gradually comes to possess such amount of knowledge as it acquires of things external to itself, and which, therefore, may easily be supposed to be operated on by these external things.

Nor is it possible by any definition of the term 'idea' to evade the danger lurking in this common-sense simple representation; for in Locke there is apparent throughout a conflict or inconsistency between two senses of the term 'idea.' "Idea," says Locke, is the name for "whatsoever is the *object* of the understanding when a man thinks."[2] Now, in this sense, 'idea' means the content apprehended in and through any process of the understanding. Our reflexions on

[1] [(1696), Opera, p. 136*a*; Schriften, v. 14 ff.]

[2] [Essay, Introd., § 8.]

ideas, taken in this sense, may justly be called philosophical criticism; for they are attempts to determine what is really contained in our ideas, what their significance is, and in what relations their meanings stand to one another. But, running alongside of this interpretation of 'idea,' there is another interpretation, which is a natural consequence of the psychological method used by Locke, a natural implication of the plain practical representation with which he starts. In this second sense the idea is a natural fact, an occurrence with natural antecedents or causes; reflexions upon it in this sense are strictly psychological; they consist in statements of the ways in which such natural occurrences come about. No doubt it is possible that the two modes of regarding ideas, if they have nothing in common, may at all events throw light on one another. Certainly, it is true that a complete account of human knowledge must consider both. But it is impossible to identify them; and it can only lead to confusion to apply them indifferently without any recognition of their distinct character, and to mix up reflexions resting on the one with reflexions resting on the other. Just this peculiar confusion and inconsistency must be ascribed to Locke's inquiry.

When Locke is applying primarily the psychological method, when he is considering in particular the origin of our ideas, he is led to formulate a quite general explanation of the way in which the materials of our thinking are brought into the mind. Such explanation consists in pointing to two sources of ideas,—the one, sensation, the other, reflexion. Some of the difficulties which have been felt in regard to the precise meaning of these important terms—sensation and reflexion — are due to the laxity of Locke's own terminology. Others, however, which have led, I think, to misleading interpretations of him, arise from a sense of the incompleteness of their explanation, when its develop-

ment in detail, as given by Locke, is taken into account. There are so obviously inconsistencies in Locke's account, recognitions of types of ideas which no ingenuity can refer to sensation and reflexion strictly defined, that it has been thought necessary to give to these terms a meaning for which no justification can be found in Locke's own express declarations.

So far as these go we are bound to interpret 'sensation' as meaning that process of natural affection of the mind, indefinable further, which results in the presence in consciousness of a simple content, that is, a content incapable of analysis and reference to distinct sources. 'Reflexion' must be interpreted as an analogous process, still less definable, whereby there are presented in consciousness the simple contents which constitute knowledge of the operations of the mind itself.[1]

It is by reference, then, vaguely enough, to the processes, more definitely to the kind of content obtained by them, that Locke expresses the significance of the terms 'sensation' and 'reflexion.' Again, one may say, this is but a repetition of the common-sense practical view, which readily enough draws at a stroke the broad distinction between an external world, which is apprehended only through the senses, and minds, which are apprehended through an analogous process of inner sense or reflexion. Moreover, no distinction is more familiar in our ordinary thinking than that between simple and compound. It is easy to frame the theory of the origin of knowledge in accordance with these positions: by sensation the mind receives the simple items of its knowledge of all that lies outside of itself; by reflexion the corresponding knowledge of what is within itself.

Locke undoubtedly places alongside of these two sources a statement of the way in which the simple elements are pu'

[1] [Essay, B. II. c. i. §§ 3-4; cf. II. xxiii. 29.]

together. Without further investigation, perhaps as a result of some analysis and survey of the kinds of composition obvious in our experience, he represents the mind as capable of exercising and as exercising certain operations upon the simple elements supplied to it.[1] It cannot create the simple elements, but, when these are given, it may combine them and even effect separations in them in a variety of ways. It may put them together, and so form complex ideas; it may compare them with one another, and so form ideas of relation; it may separate some features of an idea from the remainder, and so form abstract ideas. It is evident that here, by this addition, not only is provision made for the working-up of materials, but likewise room is given for much difficulty and doubt as to the precise meaning of his general theory. For, in the development of that theory, there come forward, in each of the three kinds of operation, distinguishable products, ideas which it is difficult or impossible to explain consistently with the original positions. For example, in the composition of a number of simple ideas, in the highly important, the all-important, case in which the product is the knowledge of a thing, there appears the idea of substance—a certain represented bond of union whereby the simple ideas are kept together, an idea about which, as Locke himself allows, we must say that it has no positive content. Its significance is altogether relative; it can be ascribed neither to sensation nor to reflexion.

In the case of the comparison of ideas with one another we seem again to be confronted with a type of idea—that of relation—which is neither of sense nor of reflexion, which arises from the special view which the mind takes of its ideas, and which therefore occupies the same anomalous position as the idea of substance; and, finally, the process of abstraction

[1] [Cf. Essay, II. xii. 1, 2.]

results in a mental content of such a kind that it cannot be said to possess any one of the qualities which we find in simple ideas, from which nevertheless it is supposed to be formed.

These difficulties, obvious enough, have naturally led to the attempt to give a somewhat different interpretation of Locke's declarations about the origin of ideas; and one ingenious critic has discovered that Locke's theory has, throughout all the history of later speculation, suffered complete misunderstanding.[1] So far from Locke being rightly regarded as an empiricist, he is throughout an intellectualist, a rationalist, and the very difficulties and inconsistencies just alluded to are seized on as evidence of the presence in Locke's mind of a theory ordinarily regarded as quite opposed to that of the Essay.

The simple ideas which furnish the material of knowledge are specially illustrative of the conflict in Locke's treatment between the psychological and the epistemological principles. From the psychological point of view the simple idea is determined mainly by reference to the purely passive attitude of mind in its reception; but, were such a principle carried out consistently, we should have to demand that what is passively received by mind should be determined by reference to that stage of the growth of mind at which it would be fair to say that it is wholly passive. As a matter of fact, Locke never attempts such a psychology of simple ideas. The simple idea for him is an extract obtained by analysis of our highly developed knowledge. Thus, for example, if we select an ordinary perception of an external object, we may proceed to ask, seeing that the total content is composite, into what distinct parts it may be divided. An enumeration of these would certainly be very like an enumeration of the qualities of the object; and it would be quite correct to point

[1] [T. E. Webb, The Intellectualism of Locke, 1858.]

out that each distinct kind of quality is correlated with a distinct mode of affection, a distinct sense; but it would be completely without psychological justification to take the results of this analysis as a catalogue of the simple contents of mind. Were we to do so we should inevitably fall into the mistake habitually committed by Locke, of identifying the simple idea, the pure product of affection of a purely passive mind, with the highly developed content of thought, the idea or representation of a simple quality. Thus the simple idea, though in theory regarded by Locke as the impression on a merely passive mind, is in practice interpreted by him in a way possible only in a highly developed active mind. It is taken to be an item of knowledge. There is not the smallest reason to suppose that the simple constituents to which our analysis of the content of experience may lead us are necessarily identical with the simplest forms of apprehended content in the mental life.

The two modes of interpreting the significance of 'idea,' which have been struggling together in the analysis of the contents of mind, are explicitly distinguished from one another in the theory of knowledge. It is no doubt true that Locke in his general statement about knowledge is mainly influenced by the psychological interpretation of 'idea' as a somewhat existing in mind; but, when he approaches the more detailed statement of the ways in which knowledge comes about, he draws a distinction which corresponds exactly to the difference between the two interpretations. For his distinction, though more elaborately formulated than is necessary, comes to this, that knowledge is either (1) the apprehension—perception, as Locke names it—of relations among the contents of our ideas, or (2) apprehension, perception, of relation between our ideas and actuality.[1] With some

[1] [Essay, IV. i. 2-3.]

vagueness of statement, Locke tends towards the definite separation between two types of proposition, the one abstract, —the abstraction being of the important kind, the withdrawal of all reference to the determining conditions of concrete existence,—the other concrete propositions, which are statements made through ideas but with reference to the actually conditioning circumstances of reality. We might call them 'ideal' and 'real' propositions, and the distinction is obviously identical in its general character with that formulated later in Hume by the terms 'relations of ideas' and 'matters of fact.'

Locke, it must be said, is not as explicit as one could wish in regard to the first type of proposition. In respect to one variety, the assertions of the highly abstract relations of identity and difference, the ground on which he seems to proceed is somewhat dependent on the psychological interpretation of ideas;[1] that is to say, he seems to regard the statements of identity and difference as consequent on the natural fact that each idea as it exists in mind is an individual, is therefore itself, and different from any other. But, on the whole, with this qualification, which no doubt points to a fundamental difficulty in his view, we may regard him as selecting for the distinguishing mark of such propositions the limitation of our apprehension to the content of the given ideas.

There is undoubtedly even greater confusion in his statement regarding the second type of proposition; for, from his point of view, there is an almost insuperable difficulty in offering an intelligible explanation of the reference to existence other than ideas which is the distinguishing feature of such propositions. Already, in dealing with Substance, which raises the same problem, Locke had been driven to introduce into his catalogue of ideas that which confessedly had no characteristic of an idea, that which was drawn from neither

[1] [Essay, IV. i. 4.]

sensation nor reflexion, that which, when closely inspected, exhibited no definable content. In truth, in the Second Book of the Essay, he had spoken of Substance as the compulsion laid upon mind to refer its ideas to the objective world of real fact[1]—a line of reflexion which, if carried out, would have modified his general theory. But, in the Fourth Book, this objective reference is reduced to a problematic tentative inference restricted to empirical conjunctions.[2] And obviously, if ideas are taken to be facts of mind, and if, even when their contents are referred to, they are interpreted in terms of facts of mind, it must be difficult or impossible to include within the lines of the theory a reference to that which by definition is neither content of idea nor an event of mind.

The fundamental distinction made supplies the basis for an almost equally important general doctrine in knowledge. Abstract or ideal propositions, involving no reference to the limiting indeterminable conditions of concrete reality, are distinguished by the degree of certainty with which they may be expressed, and by their generality. Within their range knowledge may be completed, that is to say, may be qualitatively beyond question, and quantitatively universal in scope. A proposition which states the relation between the contents of two ideas, and which therefore requires no reference to anything beyond the contents contemplated together, may be absolutely certain, and may be, indeed must be, universal in scope.[3]

On the other hand, with regard to the second type of proposition, seeing that qualitative certainty must depend on the fulfilment of an impossible condition—the comparison of the idea with that to which it refers—and that, in respect to quantity, universality would imply the fulfilment of an

[1] [Essay, II. xxiii. 4.] [2] [Essay, IV. iv. 11, 12.]
[3] [Essay, IV. ii. 1, 9.]

equally impossible condition, namely, the exhaustive survey of concrete cases, the knowledge conveyed by this type of proposition is hardly entitled to that name.

Locke, by narrowing the sense of the term probable, is restrained from describing real propositions as having only probability; but, in the more enlarged modern sense of the term, it would be correct to apply it to the knowledge embodied in real propositions. Such knowledge does not reach absolute certainty in quality, and can never be more than particular in quantity. It ought to follow from this view of real propositions that, within their range, nothing approaching demonstration, still less intuitive apprehension, is possible. Locke, nevertheless, from causes easily intelligible, maintains that we may have demonstrative knowledge of one concrete existent, namely, God, and that we have intuitive apprehension of another concrete existent, namely, self.[1]

Locke can hardly be said to have fully realised the further problem latent in this view of the propositions which concern existence, the problem, namely, of the nature of the process by which we pass from any one particular apprehension of concrete fact to another—the process of reasoning. He is compelled to touch upon it in dealing with the Syllogism; for there his view of ideas, as being each of them particular existences, seemed to him to stand in irreconcilable antagonism to the accepted view of reasoning; and naturally he takes the first steps in the direction of the more complete empirical doctrine of inference, found, for example, in Mill, and insists that we begin with particulars and ascend gradually to universals.[2] A more consistent application of his distinction between the two types of proposition would lead to the conclusions: (1) that, in respect to abstract or ideal judgments, generality, universality, is not a result

[1] [Essay, IV. iii. 21.] [2] [Essay, IV. xvii. 8.]

gradually reached by comparison, is not a generalisation from particulars, but is involved from the first; and (2) that, with respect to judgments of real existence, no universality is ever attainable, and that the process involved in the gradual extension of such knowledge as we have of concrete existences ought not perhaps to be called reasoning at all.

So far the division into the two types has been accepted. We have assumed that it is possible to apprehend relations between the contents of two ideas without any reference to what is other than ideas themselves. Locke, it is evident, identifies independence of particular existence with absence of any reference to what is other than idea as fact of mind. For instance, in the typical case afterwards to be taken as decisive, that of mathematical relations, Locke obviously assumes that, because the truth of a geometrical relation is independent of the particular realisation of it in this or that geometrical figure, therefore there is involved no reference which goes beyond the existence of the ideas as facts of mind.[1] But evidently this might be questioned, especially as Locke himself is ready to admit that in such cases the relation is not apprehended as part of the content of the ideas compared. He is ready to admit, for example, that equality to two right angles is not part of the content of our idea of the three interior angles of a triangle.[2]

In all such cases, moreover, Locke—however inconsistently with his general theory—is ready to admit that we see the necessity of the relation, a necessity which is evidently not of that analytical kind which has its locus in the relation of whole and part. It might be insisted—it was the turning-

[1] [Essay, IV. iv. 6.]

[2] Essay, IV. viii. [8: Locke's example is "that the external angle of all triangles is bigger than either of the opposite internal angles." This, he says, is "no part of the complex idea signified by the name triangle," yet it "is a real truth, and conveys with it instructive real knowledge"].

point in Kant's general view of knowledge — that, in all these cases, there is involved a reference to what goes beyond the ideas as facts of mind, and that it is therefore altogether illegitimate to suppose that, because the ideas are facts of mind, therefore the apprehension of relations among their contents does not concern and refer to real existence.

CHAPTER II.

BERKELEY.[1]

From Berkeley, who is considered here only as affecting the transition between Locke and Hume, the theory of knowledge of the Essay received undoubtedly important improvements in detail, but no modification of essence. Certainly Berkeley applies the theory to the metaphysical questions with which it is most intimately related, and comes to conclusions very different in appearance from those accepted by Locke; but, in fundamental principle, his conception of knowledge is still that of the Essay concerning Human Understanding. He is more consistent than Locke; sees more clearly what is implied in the position that the objects of understanding, of knowledge, are ideas; and he supplements the legitimate results of that theory—which, in brief, would have been the entire removal from knowledge of any reference to existence — by introducing as the necessary correlate of ideas, and therefore as wholly distinct in nature from ideas, the thinking spirit or subject or mind. Berkeley saw quite clearly that from the general doctrine 'the objects of knowledge are ideas' there followed necessarily the denial of any

[1] [Born 1685, died 1753; published Essay towards a New Theory of Vision, 1709; Principles of Human Knowledge, 1710; Three Dialogues between Hylas and Philonous, 1713; Alciphron or the Minute Philosopher, 1732; Siris, 1744. The Commonplace Book, written in 1705-8, was first published in Prof. Fraser's edition of Berkeley's Works, 1871.]

objective existence other than ideas. By 'natural or real' (that is, objective) 'existence'[1] he meant that whose nature is represented after the fashion of a thing apprehended by mind; but no such things or objects could be said to exist except ideas. On the other hand Berkeley insisted that it was equally necessary to recognise, as a condition of the existence of ideas, the thinking subject or spirit or mind in and for whom the ideas existed. Locke, of course, had not denied the existence of mind, but he had not sufficiently recognised the peculiarity of mind, and had failed to draw the conclusions involved in the admission of its existence. In a confused way, in a way wholly inconsistent with his theory, Locke had claimed intuitive knowledge of the existence of mind, a kind of knowledge impossible if, and in so far as, mind was supposed to be apprehended through ideas. But, according to Berkeley, mind is not known by way of ideas:[2] it is a consequence of the dependence of ideas on mind that mind is not itself an idea, that it is not known as an object. Ideas do not exist independently. They exist only in minds; and the term 'existing,' therefore, has, and always must have, the double meaning: existing as an object (possible only for ideas), and existing as a thinking being or spirit (possible only for the subjects of ideas).[3] From this point of view Berkeley was driven to revive the old Cartesian doctrine which Locke was inclined to reject,[4] that the mind thinks always.[5] The rather limited way in which this doctrine is stated ought not to prevent us from recognising its very general significance.

[1] [Principles of Human Knowledge, § 4.]

[2] [Principles, § 27.]

[3] [Principles, §§ 88, 89, 142.]

[4] [Essay, II. i. 10.]

[5] [Commonplace Book, Works, ed. Fraser, iv. 444 (1871), i. 34 (1901): "The mind always and constantly thinks. . . . In sleep and trances the mind exists not." Cf. Principles, § 139: "A soul or spirit is an active being whose existence consists, not in being perceived, but in perceiving ideas and thinking."]

Whoever with Berkeley insists on the correlation of mind and ideas must remember that the correlation holds good in respect to both its members. If mind is necessary for ideas, it is equally true that ideas are necessary for mind. It would be more correct to say, not that there are two meanings of existence, still less, as Berkeley and, even more, his followers tended to say, that there are two kinds of existences, minds and ideas, but that there is only one type of real existent, namely, the complex, a thinking being with ideas.

From this position, coupling with it what is equally emphatic in Berkeley's doctrine, namely, the view in which he agrees with Locke that ideas are each of them individual events in mind, we may proceed to consider the essential points of Berkeley's system under the two heads — his Metaphysic, and his Theory of Knowledge. Running through both divisions there is a certain amount of special psychology, of which it may be at once said that it marks a very considerable advance on Locke.

In the Metaphysical doctrine, it is obvious, Berkeley's problem is to determine, in accordance with his fundamental position, what account is to be given of the three commonly accepted entities—the finite mind, nature, and God. The discussion of any one of these involves the discussion of the other two. Historically, Berkeley was led to discuss in the first instance what is meant by nature, or, more particularly, by the so-called real external world.

Ideas are the only objects of mind. Such ideas are divisible into kinds according, first, as they are directly presented, 'imprinted,' as Berkeley puts it, on the senses; or, secondly, as they are reproductions of such directly given ideas: presentations and representations we may call them. In respect to the relation between them, it is of importance for understanding Berkeley's work to bear in mind

that he in one point dissents entirely from Locke's inconsistent account of what may happen to ideas that are given. Locke, as we saw, with the help of the vague notion of operations performed by the mind on its ideas, was led to introduce types of ideas—substance, relation—abstractions altogether inconsistent with his initial principles. Berkeley more logically insists, if we may use modern terms, that all the operations performed upon ideas are merely expressions of the different ways in which representations may be grouped together in mind. In his published works he does not make what is implied in his view so clear as he does in the statements in the early Commonplace Book. There Berkeley draws the logical conclusion from Locke's position, that what Locke and the psychologists of his time called 'powers of mind' are merely general names indicating the special series or complexes of particular ideas.[1] In other words, Berkeley applies to the term 'powers of mind' the strict nominalist principle, the essence of which is—only the individual concrete exists; an abstract name, like that of 'power,' can only indicate a mode, for example, a constant repetition, of individual concrete facts.

Each idea, then, for Berkeley, whether a presentation or a representation, is an individual concrete fact;[2] whence it follows that the predicates which characterise for us the so-called external world can signify proximately nothing but modes of individual ideas, ways in which they group themselves together in our minds. Thus, when we contrast a thing with the single presentation of one of its qualities, what really corresponds thereto in experience is the constant conjunction in imagination of representations which in actual sense-experience have been found to come together. Each

[1] [Works, iv. 439, 441, but cf. 464 (1871), i. 28, 31, but cf. 545 (1901).]

[2] [Hylas and Philonous, dial. i.; Works, i. 283 (1871), i. 403 (1901); Principles, Introd., § 15.]

presentation, as it is actually given, has its associates; and, if these are frequently or constantly combined in experience, there is imposed upon our representations that special form which we call the notion of a thing.

In like manner presentations are called by us the apprehension of real facts; and the notion we are there employing is that of an order of occurrence of facts independent of the particular presentation. We think of the so-called object perceived as forming part of a connected system of real events independent of the perceiving mind; but this again is no more than the form imposed upon our representations by the fact that presentations are given to us in definite series or order. Each single presentation and its copy may become, therefore, the occasion on which there is called up in mind the representations of what usually accompanied it in actual experience. For the individual subject, then, the notion, the significance, of the term 'external world' is the form imposed on its representations in consequence of the two things, (1) the way in which the presentations are given, and (2) the corresponding grouping or association of the representations in mind. Our actual perception, then, at any moment, has two factors, so far as its perceived content is concerned, and only two: (1) the actual presentations, and (2) the suggested or associated representations.[1]

We naturally interpret this relation of association as indicating a real connexion of things with one another; but there is no internal connexion of individual ideas, presentations, that is, with one another. Each presentation is, so to speak, an absolute unit. The connexion is proximately subjective, as we should put it: the units are conjoined in our minds. If we seek for what, in modern language, is called an objective bond of connexion, it must be external to the individuals themselves: it must lie in that which determines

[1] [Cf. Principles, §§ 29-33.]

the order of recurrence of the presentations in each finite mind.

Thus, it is easily seen, there are two points at which the account of nature indicates a transition to something beyond the finite spirit: (1) the individual presentation is given, not produced; (2) the order of giving is impressed on the finite mind, not produced by it. These two circumstances constitute, in Berkeley's view, a sufficient ground for the all-important consequence that that which gives the individual presentations and determines their order, being of necessity an existent, must be mind, and, obviously, the infinite mind. Perception, then, is on one side subjective only: the apprehension of the external world is but a form impressed on the representations of the finite mind; but, on the other hand, perception points to and rests on a reality distinct from the finite mind, and nature may be defined as the regular mode in which the infinite mind impresses ideas upon finite minds. What the relation is between the ideas as existing in the infinite mind and the ideas as existing in the finite mind, and what the apprehension of an object is for the infinite mind—these are hard questions for Berkeley; but they need not be entered upon here.

Let us now turn to the Theory of Knowledge. One important position in the theory of knowledge has appeared already in the statement of the metaphysic. So far as knowledge of nature is concerned, or so far as our total representation of external things is concerned, there is nothing involved beyond individual facts grouped together in a manner that is given; but if the manner of grouping is given to the finite spirit, it is implied, and Berkeley accepts the implication gladly, that all the general combinations given are rightly described as arbitrary.[1] There

[1] Cf., *e.g.*, Principles, §§ 30, 57, 106.]

is no necessity of thought in respect to the whole range of objects of mind. General laws of nature, so far as the finite spirit is concerned, are merely uniformities of conjunction among individual facts which the finite spirit gradually comes to know; and its thinking or reasoning about objects is, psychologically, a process of suggestion, and, logically, without necessity.

In truth it would have been more consistent for Berkeley —it would have been in accordance with his nominalism—to reject altogether the assumed process of reasoning. For, if a generality be only a frequently repeated conjunction of individuals, which therefore cling together in imagination, what we call 'reasoning' is just the suggestion by one particular of what commonly or uniformly has been conjoined with it. Our thinking or reasoning about nature is therefore wholly a process which can be more accurately described by the terms 'sign' and 'thing signified.'[1] Gradually, as our experience becomes organised, each individual idea gets more and more suggestive power, becomes more and more a sign, losing its individual importance and acquiring value from what it suggests or indicates. But the links of suggestion are all external to the individual ideas; that is to say, from our point of view, the laws of nature are all arbitrary.

It is the initial assumption that each idea is, and is only, an individual fact that lies at the root of this conception of knowledge of nature. Berkeley's attack on Abstract Ideas, as they had been advanced by Locke, is but a consistent application of his Nominalism. The only limit to such Nominalism or Individualism is contained in the distinction between objects of mind and minds themselves. For Berkeley, as we saw, denies that mind is or can be presented as an object. It is therefore possible for him, though it is difficult, to maintain that in our knowledge of mind there is contained some-

[1] [Principles, § 65.]

thing different in kind from the arbitrary mechanically connected individuals making up the apprehended world of objects.

Knowledge, then, as Berkeley conceives it, falls into two rather disconnected portions — that of nature or objects, which evidently becomes little more than a doctrine of signs; and that of spirits, in respect to which, it must be acknowledged, Berkeley's utterances are not such as can be readily condensed into an intelligible account. He seems to take it for granted that certain notions, not applicable to objects, to nature, are given to us in and through our experience of mind.[1] In particular, that notion expressed by the term 'action,' which indicates a relation between two facts not quite external in character, is, he seems to think, satisfactorily presented in the concrete experience of finite minds. Mind is active. The changes which it produces—though Berkeley, indeed, is very chary of his illustrations of such changes—are not to be regarded as merely the arbitrary combination in sequence of distinct independent facts. There is a real internal relation involved.

The obscurity in which Berkeley leaves this portion of his doctrine is intensified by his attempt to employ the notions of real and efficient causality, which he takes to be restricted to mind, as the basis for the important inference to the infinite mind. There are no obvious means of connecting the two portions of the premisses in that important inference —the premisses, namely, that presentations are given, and that mind is active. Still less is it possible to find a means of connecting the activity of mind, were it secured, with the general position which Berkeley throughout assumes, that what is given, in the sense of not being produced by the finite spirit, is given in the sense of being produced or caused by some other agency, and therefore by some other mind.

[1] [Principles, § 27.]

In this respect, then, we must say that his division between the spheres of knowledge—that of objects and that of minds—is made so absolute as to render it impossible to bring them together into a coherent whole; while certainly if we contrast the clearness and definiteness of the doctrine in the one sphere, that of objects, with the obscurity and incompleteness of exposition in the other, that of minds, it is not surprising that Hume should be found accepting the one and wholly rejecting the other.

There is only one partial approximation of the two spheres in Berkeley, which has in respect to later thinking a certain historical interest. In reference to the world of objects Berkeley adopts the extreme empirical position. To nothing is he more unsympathetic than to what may be called completed scientific or metaphysical interpretation of the world of fact. Now this attitude may be expressed as a disinclination on Berkeley's side to accept knowledge as having only or mainly theoretical value. The aim of knowledge, as Berkeley would put it, is practical; and we may readily extend this view to the supposed notions, as Berkeley calls them, which constitute our general view of the world of minds. There also the abstractions we employ are easily misconceived, as though they were intended to convey to us a complete speculative insight. Their function is quite different. They are of service only in the practical sphere. For the moment, one might say, Berkeley in a rather crude fashion is approaching here Kant's position with respect to what he called 'ideas of reason': that their function is not to give us completed theoretical insight, but to supply the necessary aids to a completed or a developing practical progress.[1]

[1] Alciphron, dial. vii. § 14.

CHAPTER III.

HUME.[1]

HUME accepted, in his own fashion, the general position from which the Essay concerning Human Understanding had started, that our experience, and therewith our knowledge, consists of the ideas which are present in mind. In a vague way there attaches to that general position the representation, on the one hand, of an entity, mind, to which ideas are given, and, on the other hand, of some source of ideas from which they are given to mind; but it is admitted, it is part of the initial statement, that at all events our knowledge, whether of mind or of the things to which ideas relate, depends on these ideas.

In Locke and in Berkeley we have had to notice the inconsistency with which the initial position was applied to the consideration of those more concrete problems which concern mind and its objects. In Hume, for the first time, we find the fundamental doctrine applied with a due sense of its exact scope, and with a resolute determination to draw from it only the consequences which it renders necessary. It must be remembered, in speaking thus of Hume's work, that he starts with the same confusion between the psychological and the

[1] [Born 1711, died 1776; published Treatise of Human Nature, 1739-40; Enquiry concerning Human Understanding, 1748; Enquiry concerning the Principles of Morals, 1751.]

epistemological sense of the term 'idea' which we noted in Locke. Indeed, it would not be far wrong to say that throughout Hume's speculations the motive is the constant sense of opposition and struggle between the consequences of the one interpretation and the principles seemingly implied in the other. Hume is in vain endeavouring to offer an explanation of knowledge which shall be compatible with the view of ideas as isolated events, each independent of all the others, and standing in no definable, conceivable, relation to either mind or things. It is not a little remarkable that of the hopeless character of this attempt no one had a clearer perception than Hume himself; no one, moreover, saw the ground of the impossibility with such completeness of insight. The remarkable paragraph in which he sums up his perplexities will have to be quoted later, not only as throwing light on his own speculative efforts but as foreshadowing the lines along which a new and more fruitful effort might be made.[1]

Naturally Hume begins by defining more accurately than Locke the constituents of experience. They are, as he expresses it, 'impressions' and 'ideas,' the impressions being characterised by their relative originality, the ideas by their secondary nature. The primary, the original facts, which are called impressions, are the direct data; and Hume, like Locke, declines to offer any hypothesis as to the mode in which they are given to mind. With respect to ideas, the important general feature which marks them out is indicated by the term secondary, or, more explicitly, it is that every idea is the copy of an impression. Complex ideas are groupings which in their combination need not have a corresponding grouping of impressions; but their components, simple ideas, all refer to, and are copies of, simple impressions.

These are the constituents of experience. All that falls

[1] [See below, p. 146.]

within the scope of thinking in the largest sense consists of impressions and ideas. What are called faculties and powers are just varied modes in which ideas come together; nor is there any distinction corresponding to such terms as 'conception,' 'judgment,' 'reasoning,' and the like, except, on the one hand, differences of grouping among the ideas, and, on the other hand, what Hume deserves credit for recognising even if inadequately, differences in our mode of having the ideas, differences which Hume tends to identify with varying degrees of intensity or with varying amount of some very indefinable element called feeling.[1]

Anticipating for the moment Hume's more formal discussion of this remarkable element, we may call it, as he does, 'Belief'; for that term at once indicates to us the function that the additional element has to discharge in the theory of knowledge. We have already seen how completely perplexing to Locke was the question of existence. That reference to a real existent thing, which, in some cases at least, seemed to be involved in an idea, presented a quite insoluble problem to Locke. It could not be regarded as part of the content of an idea; and, if it is neither part of an idea nor itself an idea, it can find no place in our experience, which is defined as consisting of ideas.

The element of Belief names Hume's mode of getting over the problem which Locke had found insoluble. The reference to existence, to reality, to matter of fact, is not translatable into terms of ideas. It evidently accompanies ideas, and is distinct from them. If so, says Hume, it can be nothing but the way in which we have the ideas—what, in our modern language, would be called the attitude of the mind towards its ideas. This answer may be allowed to go one step beyond

[1] [Treatise of Human Nature, B. I. pt. iii. sect. 7; ed. Green and Grose i. 396 n.; ed. Selby-Bigge, p. 96 n.]

the hopelessly perplexed position of Locke. But it is itself beset by equally formidable difficulties; for it obviously contains latent in it that distinction between mind and its perceptions, the admission of which would be altogether fatal to the fundamental position that the constituents of experience are the isolated ideas.

If the ideas,—for by that term we shall in future understand both impressions and ideas,—the constituents of experience, are each individual and isolated, then two consequences follow: (1) the relations between them are altogether external to the ideas themselves; and (2) it is possible at once to determine the whole range of what may be called complete knowledge with respect to them: for of each idea there can be predicated in strictness only itself, and the only criterion of impossibility is self-contradiction, which would destroy the idea. Any possible idea may be represented without contradiction as existing or as not existing. It is therefore wholly impossible by reason demonstratively to proceed from any one idea to the absolute position or negation of another. Every perception is a separate fact, and, as such, warrants no conclusion with respect to any other,—a general proposition which Hume expresses in a great variety of ways: for instance, by saying that if we "consider the matter *a priori*, anything may produce anything."[1]

This isolation of ideas, as it thoroughly defines the range of purely rational knowledge as Hume conceives it—knowledge which cannot be rejected without contradiction—at the same time supplies the clue to the explanation of what lies outside of rational knowledge, what we may call our knowledge of matters of fact.

[1] [Treatise of Human Nature, B. I. pt. iv. sect. 5; ed. Green and Grose, i. 529; ed. Selby-Bigge, p. 247. Cf. Enquiry concerning the Human Understanding, sect. xii. pt. 3; ed. Green and Grose, p. 135; ed. Selby-Bigge, p. 164.]

Midway between these, however, and left by Hume, as by Locke before him, in a very unsatisfactory position, is the body of knowledge of the formal relations of ideas in space and time — mathematics. Historically, it was the case of mathematical knowledge which prevented Locke from proceeding to the extreme which finds expression in Hume's analysis of experience. Locke, rather inconsistently, had admitted that mathematical propositions were, as he called it, 'instructive'; that is, that the predicate in them did not simply repeat, in whole or in part, what was contained in the subject. That the sum of the interior angles of a triangle is equal to two right angles he regarded as a proposition which is at once general and instructive. He had already declared that general propositions did not concern matters of fact; but he defended the generality allowed in mathematical judgments on the ground that their reference was not to real facts, but primarily to our ideas, and—only secondarily and hypothetically—to real things in so far as they corresponded to our ideas.

Somewhat inconsistently, Locke proposed to allow to such mathematical propositions a property which in no other case attached to judgments about ideas. All other judgments about ideas were—to use Kant's term—analytical: the predicate merely repeated some part of the subject. But Locke held that mathematical propositions were 'instructive,' conveyed information which was not part of the idea of the subject of the proposition; and he placed these propositions in a quite unique position, for which his theory offers no satisfactory explanation.[1]

In regard to this problem, Hume offers what must be called, so far as expression is concerned, a rather ambiguous answer. At times the answer he gives seems only a modification of Locke's; but the modification has this in-

[1] [Essay, IV. viii. 8; see above, p. 122 n.]

teresting feature in it, that it attempts to bring the case of mathematical generality and necessity within the range of that non-contradictoriness which is Hume's meaning for rational necessity. He tries, in other words, to identify the impossibility of denying a mathematical proposition with the impossibility of admitting a contradiction. This is the purport of his statement in his later work, the Enquiry concerning Human Understanding: "All the objects of human reason or enquiry may naturally be divided into two kinds, to wit, relations of ideas and matters of fact. Of the first kind are the sciences of geometry, algebra, and arithmetic, and in short, every affirmation which is either intuitively or demonstratively certain. . . . Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. . . Matters of fact . . . are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible, because it can never imply a contradiction. . . . Were it demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind."[1]

Such a passage quite naturally justifies the interpretation of Kant, who understood Hume to hold that mathematical propositions were all analytical, capable of being evolved from the ideas of mathematical quantities with which we start. The passage is, nevertheless, wholly irreconcilable with Hume's principles. Ideas are only copies of impressions; and more cannot be got from the copy than is in the original. A relation between ideas, accordingly, must be of one or other of two kinds: either it is an actual occurrence, and then its non-occurrence can involve no contradiction; or else it is 'analytical,' and then it must be restricted to the

[1] [Enquiry, sect. iv. pt. 1; ed. Green, p. 20 f.; ed. Selby-Bigge, p. 25 f. Cf. sect. xii. pt. 3; ed. Green, p. 135; ed. Selby-Bigge, p. 165.]

content of the single idea. By this method, then, consistently with the original position, we can find no explanation of the peculiar characteristic of the mathematical proposition—that it implies a connexion of ideas which is not part of the contents of the distinct isolated ideas.

And, in truth, Hume did not really regard mathematical propositions either as identical or as necessary and universal. Even in his later work he is to be found repeating, though all too casually, the elaborate analysis of geometrical reasoning which he had worked out in the Treatise of Human Nature.[1] In accordance with that work, we must say that he regards geometrical propositions as empirical. Such propositions, he holds, do not possess the certainty and accuracy which geometers claim for them. Even the fundamental idea of equality is based on, and is a copy of, the crude impression of equivalence, which is anything but accurate and certain. It is only the recognition by us of the gradual approximation we may make by measurement to accurate comparison, that leads us to formulate our propositions in the absolute unqualified way of geometrical science.[2] Moreover, neither in his earlier nor in his later work does Hume introduce into his theory of geometrical propositions the conception, familiar in later efforts from the side of empiricism, of hypothetical or ideal figures and quantities.

Oddly enough, Hume will not go so far with regard to arithmetic, on the ground, apparently, of some rather obscure theory he had formed regarding the process of numeration.[3]

[1] [Book I. pt. ii.]

[2] [Human Nature, I. ii. 4; ed. Green, i. 353-4; ed. Selby-Bigge, p. 48.]

[3] [H. N., I. iii. 1; ed. Green, i. 373-4; ed. Selby-Bigge, p. 71: "We are possest of a precise standard, by which we can judge of the equality and proportion of numbers; and according as they correspond or not to that standard, we determine their relations, without any possibility of error. When two numbers are so combin'd, as that the one has always an unite answering to every unite of the other, we pronounce them equal; and 'tis for want of such a standard of equality in extension, that geometry can scarce be esteem'd a perfect and infallible science."]

He seems to assume that we are capable of regarding each perception arbitrarily as a unit, and so of reckoning in units to the exclusion of all difference and independently of all concrete detail; and this leads him to assert that the propositions of any theory of number are at once certain (not depending on contingent matters of fact) and universal (for whatever is presented to mind may be subjected to this process of numeration). It is quite obvious, however, that this distinction between the process of numeration and the things numbered is one to which he is not entitled, and that it is totally inconsistent with his interpretation of immediate experience.

Passing from the inconsistency in Hume's treatment of arithmetical propositions, we turn now to ask, What explanation is given by his theory of such portion of our knowledge as concerns matters of fact? What is the nature of our apprehension of existence?

From Hume's point of view only one answer is possible. The recognition of existence is, properly speaking, a concomitant of the ideas of the existing things; and the nature of that concomitant will become apparent if we separate the two types of existence apprehended: that which is brought before us in the case of Memory, and that which appears in all so-called Reasoning about Matters of Fact.

As regards the former, the ideas which constitute Memory differ in no way in their content from ideas of imagination. The difference between them must be found in some character of the idea which is not part of its content; and this may be called either the vivacity or intensity of the idea, or the feeling with which it is received in mind.[1] The belief which we have is nothing but a special modification of feeling, due no doubt to the greater clearness, intensity, constancy of the ideas of memory as contrasted with those of imagination.

[1] [H. N., I. iii. 5; ed. Green, i. 386-8; ed. Selby-Bigge, pp. 85-6.]

When we turn to the other main type—Reasoning about Matters of Fact—we find that the more elaborate discussion has a similar result. It was, no doubt, difficult for Hume even to find a consistent expression for real existence as contrasted with what is unreal; but, from his point of view, reasoning about matters of fact was interpreted as meaning that dependence of one fact (that is, immediate perception) on another, which would render it necessary that, if the one occurred, the other should also occur.[1]

Obviously, the relation here indicated is the correlative of any process of thinking about the given objects which goes beyond mere analysis of them. If, in our thinking about an object, we go beyond the immediately given content, do more than analyse it, assert that it is in any way connected with another object, we assume that there is between the two the relation which may be called Real Dependence, or, more specifically, Causation.

The process in which this notion of Real Dependence is used is comprehensively what we call Reasoning about matters of fact. The two questions, then: (1) With what justification do we employ the conception of Real Dependence? and (2) What is the nature of the process ordinarily called Reasoning about matters of fact? are for Hume identical. We are more familiar with his answer to the first form of the question than with the answer that applies to the second.

In regard to the former question, Hume's procedure is as follows. In the first place he points out that the notion involved is wholly distinct from that of mere consistency, that it can neither be refuted nor substantiated by appeal to the contradictoriness of the opposite as a criterion. There is something involved in any assertion about matters of fact which goes beyond mere formal consistency, analytical truth, absence of contradiction. In the second place, this being

[1] [H. N., I. iv. 2; ed. Green, i. 478 ff.; ed. Selby-Bigge, p. 187 ff.]

admitted, and it being also evident that there is not any given immediate object perceived which is the original of the idea of real dependence, our appeal to what justifies the use of the notion must be, in Hume's words, 'to experience itself.' By this he means that the only reason we can offer for the assumption that one object is really connected with another is the conjunction in our experience of the two objects in a uniform way.[1]

Apparently, then, Hume's analysis of what we may call the reasoning process would, so far, consist in saying: We explain, or offer a ground for, the asserted real connexion of any two objects by appealing to the general assertion that objects of the same kind have been uniformly conjoined in our experience. The uniform conjunction is, of course, in no better position as regards necessity of reason than the individual case; there is as little inconsistency in supposing the opposite of any so-called uniform conjunction as in supposing the opposite of a single case.[2] There is, then, no necessity of reason in the process generally called Inference; but it is not yet clear in what that process consists, according to Hume.

If we keep firmly in view the fundamental position that there are only isolated perceptions and their ideas, only one answer is possible to the question concerning the nature of the so-called process of reasoning from experience. It is no more than a peculiar arrangement and colouring of the individual contents of consciousness. Let it be true that certain individual facts have been repeatedly conjoined, let it be true that the appearance of one such fact does now call up to mind what has been repeatedly conjoined with it in the past, the whole operation or transaction is no more

[1] [H. N., I. iii. 14; ed. Green, i. 457-8; ed. Selby-Bigge, p. 163. Cf. Enquiry, sect. vii. pt. 2; ed. Green, p. 62; ed. Selby-Bigge, p. 75.]

[2] [H. N., ed. Green, i. 458; ed. Selby-Bigge, p. 163-4.]

than a special grouping of the contents of consciousness. The necessity is not a relation of connexion among the ideas, but a forcible subjective tendency to pass from one idea to the other, or, more specifically, an induced conjunction of ideas in consequence of which the presence of the one immediately and forcibly suggests the other.[1] Were perceptions not given in constant combinations, our minds would not respond with customary established associations of ideas. The result produced, which we are in the habit of calling an Inference, the drawing of a conclusion, the reference of a fact to a general law, is in itself nothing but a change produced in our view of the individual fact in consequence of the suggestion of the repeatedly conjoined ideas.

On Hume's principles, then, what we call the process of reasoning concerning matters of fact is not strictly a rational act at all. There is no determination of real existence or real dependence. All that takes place is expressed in terms of the coming and going of isolated perceptions in mind, the peculiar groupings of which affect us differently. In the case of reasoning the affection is the strengthening of the idea of an antecedent or consequent of the given fact, a strengthening which Hume regards as identical with Belief in the real existence of its object; and "Belief is more properly an affair of the sensitive than of the cogitative side of our nature."[2]

This detailed answer does no more than make explicit what is involved in the initial position. There is no room in mind for any synthetic operation. Analysis Hume admits, but not synthesis; synthesis is nothing but the mechanical grouping of quite distinct contents, and admits only of natural explanation. What is called Necessity of Reason,

[1] [H. N., ed. Green, i. 459; ed. Selby-Bigge, p. 165. Cf. Enq., ed. Green, pp. 63-4; ed. Selby-Bigge, p. 77.]

[2] [H. N., I. iv. 1; ed. Green, i. 475; ed. Selby-Bigge, p. 183.]

if it does not mean the impossibility because contradictoriness of the opposite (and that is only analytical), has no objective significance; it is merely the expression for a tendency in mind; it is only subjective: "necessity is something that exists in the mind, not in objects."[1]

Hume finds naturally very great difficulty in defining the nature of this all-important factor—Belief.[2] Its conditions are more manageable, for, practically, a consideration of the gradations of belief leads to the conclusion that they vary with the constancy of connexion among given impressions. Therefore, on the whole, the effect produced might be said to be bringing the mind when possessed of ideas into a state, an attitude, identical with that in which it is when confronted with impressions. Obviously this leaves untouched the fundamental question, How the vivid intense character of an impression compels the mind to go beyond its content, and to give to the supposed object known a mode of existence distinct from that of presence in mind.

His consideration of the conditions of Belief enables Hume to say that, though it is of the nature of feeling, it cannot be regarded as a distinct concomitant of an impression or idea, —resembling, for instance, a desire or wish. It is not, he tries to say, separate from the idea or impression, but must be regarded as almost, if not quite, identical with the force of the impression or idea.[3] So regarded, of course, it comes very near in Hume's definition of it to what some modern psychologists have insisted is the peculiar unique character of feeling,—that feeling is to be regarded, not so much as

[1] [H. N., ed. Green, i. 460; ed. Selby-Bigge, p. 165.]

[2] [Cf. Treatise, B. I. pt. iii. sect. 7, 8; and App.]

[3] ["Belief in general consists in nothing but the vivacity of an idea, and an idea may acquire this vivacity by its relation to some present impression."—H. N., I. iv. 2; ed. Green, i. 496 (cf. 415, 464, 465-6, 475, 555 f.); ed. Selby-Bigge, p. 208 (cf. 116, 170, 172, 184, 624 f.) Cf. Enq., sect. v. pt. 2; ed. Green, p. 41 f.; ed. Selby-Bigge, p. 48 f.]

a possibly independent psychical fact, as the way in which impressions or acts of the mind exist there.

If, now, we turn to the application of Hume's theory of Belief and the consequences it entails, we see that they concern obviously that mode of existence which, in our thinking, seems to lie beyond the isolated perception. Objects so existing are of two kinds—the single self and the external thing. In both cases an impression or idea carries the mind to a conceived existence distinct in kind from isolated perceptions, and therefore needing explanation. Hume's explanation, in terms of his own theory, is to the following effect: The external object which we represent as having an existence independent of our perceptions, as being permanent and identical as contrasted with the transitory and differing perceptions of it, is nothing but a cluster of perceptions, that is, of ideas associated with an impression, so closely combined by constant happening together, that the mind is led to interpret the subjective connexion as a mode of objective being.[1] In like manner the single self which seems to be presented in our reflexions on the train of thought cannot be regarded as a real existence; when we turn our attention upon self, what we are presented with is always some isolated perception. As in the case of the external thing, what really corresponds to the unity and identity of self is the ease and rapidity with which the train of past perceptions is revived and run over in thought on occasion of any present perception.[2] The only objective fact, then, is the constant conjunction of certain impressions and ideas in mind whereby they are closely associated and rise together in memory or imagination.

So far, then, Hume has developed his fundamental prin-

[1] [H. N., ed. Green, i. 496-7; ed. Selby-Bigge, pp. 208-9.]

[2] [H. N., I. iv. 6; ed. Green, i. 540-1; ed. Selby-Bigge, p. 260.]

ciple. Given a mind in which the only constituents are separate perceptions, he has done what is possible to show how there comes about the knowledge which we suppose we have of things and their relations. At the close of his work Hume gives one of those comprehensive reviews of its significance and difficulties which mark the rare acuteness of his intellect. In the Appendix to the Treatise of Human Nature he gives a rapid summary of the consequences that follow from the fundamental position that all perceptions of the mind are distinct and separable; and he singles out as specially deserving of notice the bearing of this principle on the question of the unity and identity of self:—

If perceptions are distinct existences, they form a whole only by being connected together. But no connexions among distinct existences are ever discoverable by human understanding. We only *feel* a connexion or determination of the thought to pass from one object to another. It follows, therefore, that the thought alone finds personal identity, when reflecting on the train of past perceptions that compose a mind, the ideas of them are felt to be connected together, and naturally introduce each other. However extraordinary this conclusion may seem, it need not surprise us. Most philosophers seem inclined to think that personal identity *arises* from consciousness; and consciousness is nothing but a reflected thought or perception. The present philosophy, therefore, has so far a promising aspect. But all my hopes vanish when I come to explain the principles that unite our successive perceptions in our thought or consciousness. I cannot discover any theory which gives me satisfaction on this head. In short, there are two principles which I cannot render consistent; nor is it in my power to renounce either of them, namely, *that all our distinct perceptions are distinct existences*, and *that the mind never perceives any real connexion among distinct existences.* Did our perceptions either inhere in something simple and individual, or did the mind perceive some real connexion among them, there would be no difficulty in the case.[1]

[1] [H. N., App.; ed. Green, i. 559; ed. Selby-Bigge, pp. 635-6.]

PART III.

THE PHILOSOPHY OF KANT.[1]

CHAPTER I.

TRANSITION TO THE CRITICAL METHOD.

THE two preceding lines of speculation—that of Locke and that of Leibniz—however different from one another in principles and character, led to a result which may be stated in almost identical terms from whichever side we approach it: they issued in the severance of mind from reality. No doubt when we approach the problem along

[1] [Born 1724, died 1804. The chief writings of his Critical period are Kritik der reinen Vernunft, 1781, 2nd edition, 1787; Prolegomena zu einer jeden künftigen Metaphysik, 1783; Grundlegung der Metaphysik der Sitten, 1785; Metaphysische Anfangsgründe der Naturwissenschaft, 1786; Kritik der praktischen Vernunft, 1788; Kritik der Urtheilskraft, 1790; Religion innerhalb der Grenzen der blossen Vernunft, 1793. In his last years Kant was at work on a treatise entitled Vom Uebergange von der metaphysischeu Anfangsgründe der Naturwissenschaft zur Physik, the greater portion of which has been published in the Altpreussische Mouatsschrift for 1882, 1883, and 1884.

In the following footnotes, A signifies the first edition of the Kritik der reinen Vernunft; B, the second edition; M, the translation by Meiklejohn; R, the edition of Kant's Works by Rosenkranz and Schubert (1838-42); H, the edition by Hartenstein (1865-7). In Max Müller's translation of the Critique (1881), the paging of A is given.]

the line of the Leibnizian system we are compelled to express this severance by laying stress exclusively on mind. The difficulties, the insuperable perplexities, of Leibniz's system arise from the fact that in it the attempt was made to regard mind, and, above all, the individual mind, as a complete whole, the evolution of which constituted for it whatsoever relation to reality it could have. But in this conception there is implied just that isolation of mind from reality which, from another side, becomes the final result of the analysis of knowledge on Locke's method; for the completed result of that analysis, as it is found in Hume, has been shown to be the resolution of mind itself into isolated ideas or perceptions, each of which has the same kind of exclusive reality as was assigned by Leibniz to mind or the monad. Even in the less consistent developments of the view in Locke and Berkeley it was noticeable that mind participated in reality only through the intervention of its own ideas, which, in respect to it, were quite foreign material given to it as objects of contemplation, but in no vital relation to itself. So abstract a position was neither worth retaining nor logically possible; and in Hume we observed the total withdrawal of mind from reality.

The general note of the Kantian system is the reinstatement of mind as in vital and essential relation to reality. We may, indeed, come to the conclusion that the Kantian method, however opposed on the surface to that of Locke and Leibniz, yet shares so much of their presuppositions as also to render the relation sought for an abstract and illogical one. We may find, for example, that Kant, like Locke and Berkeley, is inclined to regard ideas as somehow a medium between mind and reality, that with Leibniz he is too much inclined to regard the ideal of completed knowledge as a state in which the one relation is identity, and that therefore he is precluded from bringing mind into more than a

problematical relation to reality. But though a certain antithesis between mind and reality is still retained, the general drift of his work is undoubtedly towards a synthesis which shall give to both mind and reality their due place in the constitution of experience.

The position which Kant's work occupies generally in respect to that of his predecessors cannot be defined better, or made more specific, than by tracing the gradual way in which the imperfections of the preceding methods became apparent to Kant himself: although the mere analysis of the several writings in which this development of Kant's thinking is contained will not convey to us a perfectly adequate impression of the many influences which operated in determining Kant's final view, as, for instance, of the influence exerted upon him by the progress of the natural sciences.

Kant's attention seems early to have been drawn to one of the special consequences resulting from Leibniz's view of the development of knowledge.[1] As a natural result of the scientific tendencies of the times, pure and applied mathematics were being much studied. Perhaps the interest in pure mathematics was due to the pressing character of the problem suggested by the application of mathematics to the physical universe. In the long run all such questions terminated in the general problem of the precise nature of space-relations as apprehended by us. For even if it were maintained that arithmetical propositions, or, more generally, a theory of pure quantity, could be divorced from all connexion with concrete experience, the question would only become more pressing, With what justification do we assume our right to apply these results to real experience? Can geometry—to bring the issue to a point—be regarded as a series of deductions from the 'pure relations' of arithmetical quantity?

[1] [See above, pp. 99, 105.]

Leibniz's doctrine of knowledge seemed to favour in a general way this conclusion. Space at least—possibly both space and time, but space certainly—is, according to his view, presented in sense or the perceptive apprehension of things. This apprehension, however, is but a confused notion of the real relations of objects; whence it seems to follow that the remarkable picture we have of things related to one another in space, which is characteristic of our sense-apprehension, is in fact only a confused representation of the intelligible relations of things to one another. Of course in Leibniz's view this result depends largely on the metaphysical proposition that no real object can have space-relations to any other. Space is not a real component of the system of things. It must be called 'subjective,' even though it has to be added that it corresponds to a necessary stage in the development of the mind in each monad. It follows from this view that, as space is subjective, so likewise is it wholly relative: position is a feature possessing nothing absolute: all positions in space are relative.

The peculiar facts which in Kant's view seemed to throw doubt on Leibniz's interpretation of space as altogether subjective and derivative, are mostly those furnished by geometrical figures, which, as regards the positions of their parts relatively to one another, are identical and symmetrical, and which, therefore, from the point of view of relative space only, ought to be indistinguishable as regards space; in other words, ought to be capable of perfectly unconstrained transposition. If relative position were really all that was involved, then those geometrical bodies ought to be capable without constraint of occupying one another's location or position in space. But this is not so. There is a type or class of geometrical figures such, for example, as the right and left hand gloves, or a body and its image in a mirror, in regard to which the description of the one in terms of relative position of its

parts would be indistinguishable from the description of the other, but in regard to which it is the fact that the one can by no means occupy the space of the other. The arrangement of the parts in respect to an identical central line of reference in each would be identical, but the one body cannot be twisted round so as just to occupy the space of the other. There seemed to be implied, therefore, in all such cases, which Kant called 'incongruent counterparts,'[1] a reference to a determining element over and above the relative position of their parts, a reference which in quite general terms is to the space in which both bodies are contained. The Leibnizian view then, according to which the space-qualifications of a body are dependent and derivative from what must be called the positions of the real objects and their parts, must be held to be incorrect. "It is evident," says Kant, "that determinations of space are not consequences of the positions of the parts of matter, but, contrariwise, that the latter are consequences of the former, and that therefore in respect to bodies there are differences discoverable, real differences, which concern or relate to an absolute and original space." "This absolute space," he goes on, "is no object of external perception, but a fundamental notion which renders possible all relative determination of the space-relations of objects to one another."[2]

In another way Kant had already approached part of what is involved in this statement. Following out another line of criticism of Leibniz's method, he had come to the conclusion that in method mathematics was wholly distinct from the treatment of pure intellectual notions, that there was involved in the foundations of mathematical science, therefore, an element which found no explanation in terms of pure

[1] [Von dem ersten Grunde des Unterschiedes der Gegenden im Raume (1768); R, v. 299; H, ii. 390]; cf. Caird, Critical Philosophy of Kant, i. 164 ff.

[2] [R, v. 301; H, ii. 391.]

notions.[1] That is to say, he had advanced so far as to perceive that for explanation of mathematical principles and methods something was required midway, let us say, between the extreme empirical view which he always rejected and the intellectual interpretation which had commended itself to Leibniz. Progress in mathematical knowledge was given neither by mere accumulation of sense-perceptions — the empirical explanation — nor by analysis of purely intellectual concepts—the Leibnizian view.

This latter view in many respects resembles a mode of regarding mathematical science which has always maintained a certain currency. According to it the essential foundation of mathematical knowledge is the definitions; and any peculiarity which mathematical science might be supposed to possess is regarded as a consequence of the so far accidental circumstance, that in mathematics definitions of a quite precise and accurate kind are possible.

As regards the possibility of evolving a system of really instructive propositions from definitions, Kant soon became convinced of the fallacy underlying that notion. If real knowledge could be extracted from definitions, it would certainly be remarkable that we should find ourselves in point of fact unable to effect any such increase of knowledge save in the case of mathematical knowledge. Equally remarkable would be the consequence involved in the view that mathematical science is only one of an infinitely numerous set of sciences equally possible: for definitions are quite arbitrary, and, were the theory altogether sound, we might have any number of sciences like mathematics evolved from perfectly arbitrary definitions. On this view it would have to be regarded as a peculiarly happy accident that, somehow, mathematical propositions were found

[1] [Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und der Moral (1764); R, i. 77 ff.; H, ii. 284 ff.]

in such satisfactory correspondence with the real relations of experience.

In his first essays towards a solution of this problem Kant did not advance much beyond the point of recognising that mathematical procedure was not mere analysis of the definitions, that the definitions themselves furnished but a small part of the foundation, and that they seemed to furnish the whole only because we easily overlook what is peculiar to the definitions of mathematical science. All advance in mathematical knowledge is effected by the help of and through an appeal to some real factor of experience, a factor the nature of which at this stage of his consideration Kant was unable thoroughly to determine. Negatively, of course, there could be said about it that it is not identical with the isolated empirical perceptions; for by their help no explanation could be given of the generality, the universality, of a mathematical statement. On the other hand, the presence of this factor made a difference of kind between propositions in mathematics and propositions resulting from an analysis of pure notions,—whether these notions were generalisations from experience or inherent possessions of the intellect. It is evident that the factor towards which Kant is here tending is just this representation of space as a 'fundamental notion' (as he calls it) of experience which makes possible all relative position, and which therefore constitutes part of the real experience of sense. On these grounds, then, there began to appear in Kant's pre-critical work the conception of a total distinction between the region of sense-perception and the region of pure intellect,—a distinction not, like that admitted by Leibniz, of degree, as between two ways of apprehending the same things, but of kind, each having its distinct type of object.

It was hardly possible even to approach this distinction without having a further and more general problem suggested

by it. Within the region of sense-perception there are possible not merely propositions of the mathematical kind; alongside of these, and even more important, stand those propositions which, in Hume's language, express matters of fact: and prominent there are the propositions which express the real dependence of one fact on others. Now, the tendency of Kant's criticism of the Leibnizian theory, already apparent in regard to mathematics, is equally apparent with regard to the knowledge of matters of fact. Very early he had seen, and I think quite independently of any knowledge of Hume's work, that knowledge of a matter of fact involved something more than the analysis of a notion—a position which in his language was expressed by saying that the relation of ground and consequent in real fact was totally distinct from the relation of ground and consequent in pure notions; for in the latter the relation is merely that of identity, whereas in the former the peculiarity is that the consequent is in fact distinct from the ground and not deducible from it.[1]

So far, then, there begin to appear in Kant—(1) the recognition of the peculiar factor involved in mathematical knowledge; (2) the distinction between perception and understanding as having different objects; and (3) the recognition of some need of explaining, in a manner, one may say, analogous to the explanation offered for mathematical knowledge, the possibility of making assertions that are general about matters of fact. About the last of these Kant is most obscure.

In the pre-critical writings undoubtedly a certain turning-point is marked by the important Dissertation on the Form

[1] [Principiorum primorum cognitionis metaphysicæ nova dilucidatio (1755); cf. R, i. 19; H, i. 380; Caird, i. 108-9; Versuch den Begriff der negativen Grössen in die Weltweisheit einzuführen (1763); R, i. 113 ff.; H, ii. 69 ff.]

and Principles of the Sensible and Intelligible World, published in 1770, eleven years before the Critique of Pure Reason. There is so much similarity in general outline between the Dissertation and the Critique of Pure Reason, that the one has too definitely been taken as the immediate forerunner of the other. So far from adopting this view, I am inclined to say that the Dissertation ought rather to be regarded as defining a transition stage in Kant's thinking, as summing up the results so far reached by him, and by such summation bringing them into a relation which rendered it impossible for him any longer to accept them. The really Critical question, it appears to me, is not so much contained in the Dissertation as forced forward by the formulation therein of a quite different view of knowledge.

The line of inquiry so far had brought Kant in presence of the broad distinction between Sense and Intellect, and had led him to the conviction that the all-important notion of Space could not be treated either as a relation among real objects or as a consequence of such relations in the supposed obscure apprehension of real things through perception. It is with this antithesis between Sense and Intellect that the Dissertation of 1770 is mainly occupied; and there are good grounds for saying that what gave definiteness to the antithesis in Kant's mind was mainly the problems forced on him by consideration of the nature of space and time. If we assume, as Kant was inclined to do, a complete separation, as regards nature and objects, between intellect and perception, we may find abundant evidence for our view in the conflict of opinions, or of our own thoughts, respecting space and time. Were we to proceed from the point of view of intellect, making complete abstraction from all conditions of presentation in sense-perception, we should insist upon certain features of space and time which seem to be justified by the pure laws of abstract thinking. On the other hand, when we transfer

ourselves into the sphere of sense-perception, we find that it is impossible for sense-perception to furnish anything completely corresponding to those intellectual determinations upon which thought insists in respect to space and time. Indeed, what is obvious in the case of time and space is equally clear if we select as the object the sum-total of existence. We shall there find a similar want of correspondence between the determinations of thought and the possibilities of sense-perception. In the Critique Kant drew out in detail these oppositions in respect to Space, Time, and the sum of existence, and they appear as the forms of an Antinomy. The interpretation which, at the period of the Dissertation, he seems to have been inclined to put upon this Antinomy, was that it resulted from an illegitimate identification of the sensible with the intelligible: it sprang, as he thought, from the natural tendency to ignore the total, the generic, difference between sense and thought—a tendency which again may be expressed as the natural assumption that sense and thought have the same objects. Such an assumption, as we know, Kant thought he discerned throughout Leibniz's view of knowledge. Leibniz's solution of the difficulty, that sense was only confused thought, Kant could not accept; and, at the period of the Dissertation, he inclined to the counter alternative, that the processes and their objects are generically distinct.[1]

A distinction of this sort naturally led to a quite isolated treatment of the two processes and to a quite independent determination of the objects with which each was correlated. Kant accordingly proceeds to define the nature and conditions of the two processes as if in the work of knowledge each operated quite independently of the other. The first broad distinction between the two processes is of the kind familiar

[1] This is really the old so-called Platonic doctrine that there are two distinct realms of existence, apprehended in wholly different ways.

in Logic between positive and negative: that is to say, while sense-perception is taken to be the apprehension of what affects the senses, intelligence is taken to be the process of apprehending what can not affect the senses. Naturally, moreover, from this point of view, Kant proceeds to describe the first as a receptivity and the second as a faculty.

Sense-perception as a receptivity is more exactly defined by Kant as that whereby the 'representative condition' of the subject is affected by the presence of some object; Intellect, as a faculty by which the subject is able to represent to himself what cannot in any way affect the senses. It requires particular notice that in these definitions there is included without any investigation the all-important term 'representing,'—a term familiar in the Leibnizian philosophy, and for which no equivalent could be found but the word 'knowing.' Further, the object of sense-perception is the sensible; that which can only be apprehended by intellect is the intelligible: the former, says Kant, is called in the schools *phenomenon*, the latter *noumenon*.[1]

Now from this foundation, which really determines in a quite dogmatic way the whole problem respecting knowledge, Kant proceeds to further distinctions which are so suggestive of the later doctrines of the Critique, that the whole conception of knowledge of the Critique has been thought to be anticipated in this Dissertation. Thus, in the first place, as regards sense-perception, he proceeds to point out that since it is variable, and dependent on the presence and activity of the objects, the knowledge obtained thereby is that of things as they appear; whereas, if knowledge is free from any such subjective condition, then it contains nothing which does not concern the object—it is a pure unmixed apprehension of its own objects as they are.

[1] [De mundi sensibilis atque intelligibilis forma et principiis, R, i. 309; H, ii. 400.]

Again, sense-perception when investigated displays a certain duality of function or operation. On the one hand there are certain materials supplied to it — what are ordinarily called the several sensations—and, on the other hand, however varied these are, they are put together, arranged, by a certain natural law of the mind. As regards this second function, Kant applies to it the view that it is free from subjective variation even though it does not in itself constitute an apprehension of an object. It is not an affection of sense; it must be regarded as a product of a certain inner principle of the mind itself, by whose operations the variable material of sense is endowed with form according to certain fixed and innate laws. The forms of sense do not apply beyond the region of perception. Any cognition which concerns them is restricted, equally with the variable material of sense, to the region of the phenomenal, of what is perceived. Such forms, Kant proceeds to detail, are Time and Space.

It is therefore in reference to Leibniz's theory, not to the empirical doctrine of perception, that Kant develops the view technically called that of the *a priori* character of the space-element in perception. When he says that space cannot be derived from objects, but is the condition through which there come to be objects of perception, he has Leibniz in view, not the empirical doctrine, and he was approaching this peculiar theory of space and time solely under the influence of criticism directed upon Leibniz's corresponding view. In like manner it was in independence of the empirical theory that he was led to approach the other salient feature of space and time in his theory—their subjectivity. For the conception of space which presented itself to him as the rival to that of Leibniz was that contained in Newton's natural philosophy, not that of any empirical treatment of mind. He agreed so far with Newton's doctrine as to

maintain that all fixation of position in space implied the pre-existence of space; but he could not accept the theory by which Newton seemed to account for this, the theory according to which relative space is distinguished from but connected with absolute space. From such a view he recoiled on the ground that it imported into the realm of objects an entity—absolute space—the definable qualities and relations of which to other objects led to quite hopeless difficulties. As he puts it later, things of sense are not made up of the material contained in them and space, nor are things contained in space as their common receptacle. Thus it seemed to him that if space were a pre-condition of sense-objects, and if space in general were in some way independent of fixation or relative position, the only possible explanation left was that space was the form imposed on objects of perception by the perceiving mind. That space, so to speak, sprang from mind, accounted for the kind of independence it had of relative position: it was a common condition of all possible objects of external perception. That space belonged to the receptive element in the process of perception and was distinct from the particular material, was likewise explicable if space in itself were but the form or way in which the receptivity of mind could be affected.

So far, then, it will be observed that Kant is still expressing the problem of perception in a very mechanical fashion: given a mind receptive of impressions, and so constituted that it receives such impressions as sense-contents into the forms of space or time, and the apprehension of objects of sense is accounted for.

On the other hand, a much less detailed exposition was given of the process of understanding. Intellect, like sense, has a double function assigned to it, according as (1) it operates on materials supplied to it, or (2) furnishes mate-

rials for itself. The first of these is the familiar operation of the understanding upon sense-perceptions, of comparing, judging, reasoning about them. The supreme principle under which this operation is carried out is that of Contradiction, and Kant calls the whole the 'logical' function of intelligence. With respect to this, again, he notes that, as in the case of the forms of sense-perception, the knowledge we gain is restricted to phenomena. The second, the more obscure, function of intellect is characterised by Kant as 'real,' in contradistinction from the merely logical. The objects of this second function are not abstracted from the things of sense: rather with respect to them we ought to say that in their apprehension we make abstraction from, that is, we separate ourselves from, everything that belongs to the region of sense.

Those real notions which express the inherent laws of understanding furnish us with representations of objects which can be characterised, negatively at least, as not within the range of sense-perception: they are objects of the kind which Kant later called by the technical term 'transcendent,' —they go beyond experience. Summarily, all such objects may be described as the real world, the intelligible system; and Kant thinks it possible, in regard to such a realm of real objects, to determine on grounds of pure reason something respecting its mode of combination. No doubt such determinations must all be expressed in a rather hypothetical fashion; and our tendency is inevitably towards introducing into them a feature which belongs only to the realm of sense. We can say, however, that at all events, if the system of ultimate reality is one, it can in no way consist of a collection, a congeries, of real existents or substances, each of which is necessary. Its unity implies the dependence of all the parts on some one ultimate cause, and the relations of the parts to one another are not dependent

solely on the nature of the parts, but, taken together, express the dependence of each and every part on the one cause. This one cause Kant calls God.

It will be noted that, in these sharp distinctions, Kant is arriving by a new route at the questions which previously had been discussed by him more definitely from the point of view of Leibniz's doctrine of knowledge. In these previous essays he had reached the conclusion that knowledge of empirical connexions of fact was not to be explained, as Leibniz had tried to explain it, as merely a confused form of pure or analytical thinking. Whenever a connexion of fact is involved, Kant had previously held, there was somehow involved a notion not furnished by experience but applied on occasion of experience. Indeed, at one time he had even appeared to think that experience itself justified the application of such notions, of which a typical example is that of Cause and Effect. Now in the Dissertation he is equally ready to insist that there are notions which do not arise from experience; but apparently he makes no effort to show that or how they find application to experience. So far, indeed, as his method of separating sense and understanding is concerned, it would seem as though we must contemplate a twofold consideration of any such notion as cause and effect. On the one hand it appears in the work of pure understanding as expressing a relation of dependence of pure transcendent non-empirical objects: on the other hand it must appear somehow (Kant in the Dissertation makes no reference to it) in regard to the operations by which, through sense-perception and the logical use of understanding, our knowledge is built up. If, indeed, we choose to say that in this second sphere the notion finds no application at all, that, in the realm of experience, knowledge of the connexion of cause and effect is wholly distinct from the knowledge of quantitative connexions—is contingent merely, while quan-

titative connexions are necessary—the position would resemble in all essentials, on one side at least, that of Hume.

Now, it may be that it was from a reconsideration of Hume's argument with respect to cause and effect that Kant was compelled to review the results reached in the Dissertation. But there is abundant evidence to show what the precise question was that presented itself to him and effected a complete change in his mode of regarding the nature of knowledge. The general problem, which began to present itself to him at first under the guise of an inquiry into the boundary between Sense and Understanding, is formulated in an interesting passage of a letter to one of his correspondents.[1]

The general question, How is it that an idea in us should, as Kant puts it, 'relate to an object'? in other words, How

[1] ["I noted that something essential was wanting, something which I myself, in my long metaphysical researches, and all others had left out of account, and which, in fact, gives the key to all the mysteries of metaphysic; for I asked myself, on what rests the reference to the object of that which we call ideas in us? . . . I had asserted in the Dissertation that ideas of sense represent things as they appear, and that ideas of understanding represent them as they are. But how can these things be given to us if not by the mode in which they affect us? and if the ideas of understanding arise from our inner activity, whence comes the agreement which they must have with objects, which nevertheless they do not produce? and how can the axioms of pure reason agree with these objects, without this agreement being in any way dependent upon experience? In mathematics this is possible; for objects are, and can be represented as, quantities, only because we are able to produce the ideas of them by taking a unit several times over. The notions of quantity are generated actively, and their principles, therefore, can be developed *a priori*. But, in relation to qualities, how shall my understanding form notions of things completely *a priori*, with which the things must necessarily agree; how shall it lay down real principles as to their possibility, to which experience must exactly conform, and which yet are independent of experience? This question always leaves behind it the obscurity as to how that agreement with things themselves belongs to our faculty of understanding."—Letter to Marcus Herz, 21st Feb. 1772. R, XI. i. 25-7; H. viii. 689-90]; Caird, i. 195-7; [cf. the author's Philosophy of Kant, p. 28].

does it constitute knowledge of an object? Kant appreciates most keenly with respect to the assumed pure ideas of abstracted understanding. He still appears to think that, if the idea could be regarded as an affection produced in us by an object, it would be quite easy to understand how it constituted knowledge of the object; but, in the case in which the ideas are presumed to spring from the activity of mind itself, such explanation is impossible. We seem hopelessly at a loss when the question is asked, With what justification do we assume that in these ideas there is the apprehension of a real object?

The more this question is turned over the more certain is it that the further, far more important, inquiry which it conceals within itself should begin to acquire its necessary prominence: How is it that any idea in us, any subjective state, whether we are justified or not in saying that it is produced by an object, should carry with it this fundamental but perplexing element—reference to an object? Sense-perception requires to have such an inquiry directed on it just as much as pure understanding. It is altogether impossible to suppose that the mere statement 'the mind undergoes affection from a quite hypothetical world of objects' should make clear to us how we come to apprehend a world of objects, and should leave no doubt as to the justification for the use we make of our own ideas as representing the nature and relations of real objects. Even mathematical knowledge, however satisfactory in other respects, furnishes, through the explanation of it given by reference to the forms of sensibility, no justification of the enormous assumption made tacitly in it that its propositions are veritably expressions of the real nature and relations of objects perceived.

Our evidence certainly does not enable us to date with any precision the time at which it became obvious to Kant that

the problem he had started, How is the idea related to the object? was as pressing in the case of sense-perception as he saw it to be in the case of pure understanding. Perhaps his preoccupation with pure understanding does something to cause a misconception of the general scope of the solution which he presented in the Critique of Pure Reason. On the whole, as we shall find, that solution consists in bringing together again the functions of sense and understanding which were severed in the Dissertation—a bringing together which involved a very profound modification in the way of interpreting both functions. But what Kant will be found saying is that, in what is called sense-perception, apprehension of objects comes about only through the necessary co-operation of passive sense with active understanding, and that, as regards the realm of understanding, the same co-operation is requisite in order to constitute knowledge of objects: in other words, that understanding has no means of determining by itself objects which transcend experience, and that all its notions, the expressions of its own activity, are without meaning if taken to apply to objects that lie beyond experience.[1]

[1] Cf. Kritik d. r. V., Introd., and Transc. Doct. of Method; A, 727-37; B, 754-66; M, 442-9.

CHAPTER II.

THE CRITICAL METHOD.

THE critieal question, even when sketehed in this preliminary fashion, renders necessary a quite new mode of approaching the faet of knowledge, a new mode which constitutes indeed what is often described as the Critical Method. The term 'Critical Method' may indeed be applied in a general way to any investigation of supposed principles of knowledge which is directed towards determining what justification there is for the position assigned to them: in partieular, if we take as illustrating principles of knowledge those highly abstract ideas with which metaphysics has always concerned itself—God, as the ground of all finite existence; Nature, as a complete system of reciproeally determining objects; Freedom, as the one characteristie reeoneilable with the conseious action of man—the applieation of the Critieal Method means that we propose to eonsider these principles in the light of the meaning they ean possess for a conscious or thinking being. That is to say, negatively, we must not apply to these problems the ideas with which we operate ordinarily in dealing with faets of experience. We must not, for example, proeeed to argue on the basis of the convenient assumption that God and finite things are related to one another just as other objects may be —though one of them has the rather inexplieable peculi-

arity of being infinite. For it is possible, perhaps certain, that the range of such relations is to be determined by reference to considerations which would render them quite inapplicable to the supposed objects — God and finite things. Positively, we must proceed by considering what significance the notions of infinite and finite beings can have in experience itself, that is, for the thinking subject, and how far, in accordance with such meaning, it is possible to apply them to the solution of our problem. The very research which is conducted after such a method may show us that what appears to be the negative result we reach—for example, that within the experience of the thinking being no justifiable determination of the relations between the infinite ground and the finite facts is attainable—has also a positive significance and worth. It may enable us, that is, to determine finally what place in the whole content of the experience of a thinking subject such ideas as Infinite and Finite are entitled to occupy, and thus may show us that what seems at first sight the failure to solve a problem of reason is really a fuller solution than we had contemplated: that the supposed limit to our powers of apprehending what claims to be real does not indicate a deficiency, but serves to determine the real positive significance of what is in experience.

These general applications of the critical method are all subordinate to what is the real essential mark—the insistence on the determination of all questions by reference to the inner point of view from which knowledge must be considered. Ideas, the components of knowledge, had been regarded by Locke and Hume from the external point of view, as so many facts either given to or constituting the mind. Even in Leibniz, ideas had been too much regarded in the objective fashion as stages in the development of the individual subject. What Kant proposes to do

is to examine ideas or knowledge from the inner side as modes of apprehension. Knowledge must be scrutinised as it presents itself in the experience of the thinking being, and the conditions of such knowledge are to be found by determining what is necessary in order that it shall be possible for the thinking subject.

It certainly is not the case that Kant is always successful in keeping his own account of knowledge within the limits of the critical question. Even at the outset of his analysis of knowledge we find him employing as a basis a proposition respecting the origin of knowledge—the sources, powers, or faculties of the human mind by which knowledge is given to us as a matter of fact. And it is impossible to avoid observing how frequently the consequences of this initial proposition make themselves felt in the course of his treatment of knowledge. In particular, for example, throughout the whole analysis there runs the distinction, assumed on the ground of consideration of the origin of knowledge, between Sense and Understanding,—a distinction, again, which is further characterised as that between the relatively passive and the relatively active functions of mind. All such terms, which inevitably suggest a certain theory as to the real conditions of knowledge as a matter of fact, as an occurrence, are foreign to the critical method and detrimental to its application. It may be that, in the long run, for complete solution of the problem of knowledge, it is necessary to combine both modes of contemplating knowledge,—that which proposes to investigate it, so to speak, from within, and that which proposes to treat its mode of occurrence, and which therefore must so far treat it from without. But it is quite certain that only confusion can result from prematurely, at the very outset, mixing up the two methods, and drawing upon the one while carrying out an inquiry under the other.

The terms in which Kant expresses the gist of the

critical method increase somewhat this confusion. To ask what are the conditions of the possibility of knowledge is to put a question which may quite naturally seem to receive its answer by pointing to the conditions under which, as a matter of fact, knowledge comes about in the life of the conscious subject. This is not really the meaning of Kant's question, the answer to which, as he understands it, would consist in a statement of what is contained in knowing as regarded from within by the subject himself. The answer is given, not by an external history of the way in which knowledge occurs, but by what may be called inner analysis of the fact of knowledge—that is, by determining what is necessary in order that knowledge at all shall be possible for the thinking subject.

This question of the possibility of knowledge connected itself in Kant's mind with a very significant result of his previous inquiries. There, partly in consequence of the distinction of kind insisted on between sense and understanding, Kant had come to recognise Synthesis and Analysis as opposites in experience or knowledge. A notion was either formed from the empirical matter by comparison, or generated by the pure activity of the understanding itself. In either case it formed in our experience a unit with definite content, in the one case acquired from empirical data, in the other case contributed from within. Now, it had become clear to Kant that, so far as operation with such units was concerned, it did not and could not consist in more than explication of the definite content. Even if the notions are pure notions of understanding, and even if we were justified in assuming, as Kant formerly thought, that each such notion was the representation of a thing in itself, it was impossible for our thought so to connect these notions as to constitute legitimately an advance in knowledge. Analysis of them was possible, but nothing

more. On the other hand Experience, that is to say, given data of sense, certainly supplied the materials for synthesis, if that were otherwise possible. Such synthesis might be admitted, and Kant formerly did admit it without inquiry, provided that (1) the field of it were the empirical data of sense, and (2) the propositions expressing it were only contingent, or, logically, were particular. Our ordinary experience, however, seemed to contain a number of propositions which were not analytical, for by them our knowledge was increased, and which nevertheless claimed to possess and were allowed to possess universality. Mathematical propositions, for example, found no explanation as mere summations of empirical particulars, and on the other hand they were not analytical. In a kind of preliminary way in his previous researches Kant had foreshadowed part at least of the explanation he was going to offer of the peculiarity of these propositions. They did lie within the field of sense; but, as they concerned only the form of sense, and were therefore independent of the contingent changes of empirical fact, since they rested on a universal law of the process of sense, they might be universal. Still, such explanation was only partial, for it did not really explain the all-important factor—the synthesis effected.

It greatly obscures Kant's reasoning in this important line of his work that he always seems to speak as though in respect to the contingent propositions of experience the same question, How did the synthesis come about? did not press for answer. He seems always inclined to accept the perfectly barren statement that the empirical data are supplied to us, as an explanation of how it is that we frame in regard to them propositions which assert their conjunction in experience. But evidently the problem, so far as the nature of synthesis is concerned, is identical in the two cases. The identity of the two problems no doubt became apparent to

Kant through reflexion on the impossibility of arriving at any mathematical proposition except through the co-operation of what is otherwise called the contingent matter of sense-perception. The pure form of sense by itself affords no means for carrying out the act of synthesis. It is not an object within which the work of connecting part with part can be carried out. Wherever there is synthesis, as Kant soon became aware, there must of necessity be presented just what is called the contingent material of sense. When, however, this contingent material is taken as though it supplied by itself all that is required for knowledge of it, the omission in the previous statement becomes apparent. Even for the most limited empirical proposition there is requisite the same function of synthesis as is obviously involved in the universal propositions of mathematics.

Thus one might fairly say that Kant's question, which he sketches in the Introduction to the Critique, How are synthetical propositions *a priori* possible? is needlessly limited in scope, and even somewhat misleading. The question in the long run is, How and under what conditions is Synthesis at all possible? For it is in synthesis that the essential characteristic of all real knowledge is to be found. Such synthesis, Kant has already seen, can in no way be explained by any reference to the objects. In trying to explain it we must entirely reverse our point of view and contemplate synthesis as arising not from the objects but from the nature of the thinking subject himself. Such an alteration in the point of view is just the transition from the dogmatic or scientific or psychological way of regarding knowledge to the critical. The characteristic of the dogmatic method is to apply notions to the interpretation of knowledge, as if in them were to be found a criterion of truth superior to knowledge itself, as if, therefore, knowledge

were merely a fact to be explained by their means. On the contrary, it is characteristic of the critical method to regard notions as but the organic parts of knowledge as a whole: each having its function through its place in the whole, and having no justification beyond what it can claim as a part of that whole.

From this point of view, it will be noted, mind receives its due as a component of experience. For, if the method were carried out rigorously, mind would appear in like fashion with objects as but one aspect or portion of the whole, and would not have assigned to it the ambiguous and problematical position of isolation from experience or of action upon the materials furnished to it through experience. But, throughout his application of the critical method, a certain confusion in Kant's thinking is to be traced to the presence of this dogmatic conception of mind as an ultimate, a given entity with a character not further explicable, from which there is derived what constitutes the function of mind in the construction of experience. We still find Kant tending to represent the function of mind as that of operating on the given material, fashioning it into forms in consequence of its peculiar inherent constitution. However strenuously he repudiates in words any doctrine of innateness, his exposition of the way in which the forms of understanding are imposed on the material of sense can hardly be interpreted except from a point of view not to be distinguished from that of innateness.

So too, in a more important aspect, there still clings to the application of the critical method the ill-defined distinction between the world of experience and the realm of reality distinct from but connected with it. Knowledge is still in a way conceived as though it were nothing but the mode in which the mind, from its nature, reacts to the influences impressed on it by the larger world of reality. In details,

as I think, it is impossible for Kant to reconcile his critical point of view with the subjectivity which he tends always to assign to perception, to our apprehension of empirical fact. No commentary has yet succeeded in making quite coherent the answer which Kant would return to the question, What are the empirical objects perceived by us? In other words, despite all his efforts, Kant's theory does not succeed in bringing into perfect harmony mind and reality. At the close of his work there is still the same doubleness of system which in its crudest fashion we saw expressed in the Dissertation.

CHAPTER III.

THE FORMS OF INTUITION.

HAVING seen, in general terms, the point of view from which Kant proposes to examine knowledge or experience, we may now for a short period follow the line of his advance without introducing either general criticism of the method or special discussion of the several points raised.

The function of mind in knowledge presents itself to Kant most explicitly, as we saw, in the fact of Synthesis; and, as he for the most part proceeds on the generally accepted distinction between *a posteriori*, as what is furnished to mind, and *a priori*, as what is directly contributed from mind, the function of mind appears more specifically in the fact of *a priori* synthesis. Such *a priori* synthesis seems to offer itself in three distinct departments of human knowledge: (1) in Mathematical Science; (2) in Natural Science or Physics; and (3) in Metaphysic, so far at least as for the moment, provisionally, the claim of Metaphysic to be a science is admitted. In each of these departments of knowledge are to be found, and found as indispensable and fundamental parts thereof, propositions which are synthetical, and which nevertheless must be called *a priori*; for they have the characteristics—universality and necessity—which find no explanation in given material. Thus a threefold division of the general critical analysis of knowledge is at once presented,

and the question becomes threefold: What are the conditions which render possible the *a priori* synthesis which is at the foundation of mathematics? of physics? of metaphysic?

The arrangement of problems from this rather external or objective point of view is found to coincide with the distribution of the problem which would follow from a consideration of the different functions which mind exercises in the total fact of knowledge. For in that total fact are involved, first, sense-perception; secondly, understanding, as the faculty of such conceptions as indicate the orderly connexion, the universal rules, of the combination of sense-perceptions; and, thirdly, reason, as a function which in some way we have to recognise, seeing that, legitimately or illegitimately, we form notions, or ideas, the content of which is not capable of being stated in terms either of sense-perception or of the general rules of combination of sense-perceptions. There would thus seem to be necessary a critical, or, as Kant calls it, a transcendental[1] doctrine of sense, a critical or transcendental doctrine of understanding, and a critical or transcendental doctrine of reason. The divisions of the first Critique are therefore in Kant's terminology (1) the Transcendental Æsthetic — the doctrine of sense-perception, or, perhaps better, of sense-intuition; (2) the Transcendental Analytic—the critical study of Understanding; and (3) the Transcendental Dialectic—the study of Reason. It is true that these divisions apply more exactly to the distinction according to functions than to the distinction according to sciences; for a good deal of what concerns Mathematics falls within the scope of the Analytic. The ground for such slight confusion or cross-division is evident enough: the functions

[1] ["I call all knowledge *transcendental* which is occupied not with objects, but with our mode of knowing objects so far as that is possible *a priori*." "A principle which removes the limits of experience, and indeed requires us to overstep them, is called *transcendent*."—Kritik, A, 11, 296; B, 25, 453; M, 16, 211.]

do not severally contribute independent kinds or portions of knowledge.

The isolation of these functions causes Kant's exposition to be at times confused and even misleading; and this remark must be applied with particular emphasis to the Transcendental Æsthetic. The gist of that section is the indication of the peculiar nature and place of space and time as forms of sense-intuition, and therefore as the possible foundations of an *a priori* pure cognition, namely, Mathematics.

The substance of the statement respecting space and time, so conceived, is taken from the earlier work, the Dissertation, varying very slightly from it even in expression. It was therefore almost impossible for Kant to avoid modes of expression which were adapted to a very different general conception of knowledge: very difficult, for example, to avoid the mode of representing sense-perception as a way in which objects were known. It almost appears as though he were prepared to say, as he would doubtless have said in 1770, that nothing more was required for mathematical knowledge than sense-perception operating under its general *a priori* laws, and therefore in all its details preserving a certain *a priori* uniformity or *a priori* structure. But these pure forms of intuition may be the condition which renders pure mathematical science possible, while at the same time such science only becomes actual through the co-operation of functions wholly distinct from those assigned to sense; and this, in brief, is Kant's more matured view.

The Transcendental Æsthetic, then, isolating sense-perception or sense-intuition, proposes as its special problem the consideration of the elements in sense-intuition which must be assigned to mind rather than to the contents presented to mind in consequence of what are called 'affections of sense.'

Kant retains his old distinction between form and matter: the matter of sense is the various contents directly supplied through affection of the capacity or receptivity of sense. In regard to such matter mind is passive, recipient. On the other hand, the form is that whereby the contents presented are arranged in some specific way. No more than these, matter and form, are to be assigned to sense · we must make, that is to say, a complete abstraction from all that may otherwise appear in what is called our apprehension of sense-objects. The forms of sense, it will here be noted, are taken by Kant to be indubitably part of the total function of sense itself. But only in the detailed consideration of them does he advance any arguments to show that these forms, which are distinct from the matter of sense, and might therefore be referred to some other source in mind, are nevertheless part and parcel of sense itself.

The two forms of sense are space and time; and in regard to them Kant's exposition is twofold. (1) He proceeds to justify the description of each as form, not matter, and as belonging to sense, not to any other function of mind, by an analysis of the part they play in the total fact of sense-perception. (2) In the second place he proceeds to point out that only on the hypothesis that they are *a priori* forms of sense is it possible to find a foundation for the *a priori* synthesis which is admitted in mathematical science. The first he calls the Metaphysical exposition, the second the Transcendental.

As regards the Metaphysical exposition the treatments of time and of space follow on the whole much the same line. First, it is pointed out that neither space nor time can be taken to be notions generalised from given impressions. Such given impressions, in order to afford such generalisation, must themselves contain the very element which we are seeking to explain as arising from them.

Moreover spaee and time are not only inexplieable by referenee to the details of sense-perception (whieh, contrariwise, as faets apprehended, presuppose them), but constitute in their entirety conditions which, so to speak, preeede any apprehension of the varied detail of sense-perception. They are in no way a product of objects, but must be assumed as, so to speak, ready prepared for the reception of objects in order that apprehension of the latter may come about.

Space and time are thus *a priori* in that they are not explicable as produets from sense-experience, but, contrariwise, are conditions required in order to make such sense-experience possible. Their distinction from logical notions or concepts has next to be made clear. In this distinction indeed consists for the most part their peculiar character as faetors in our knowledge. Throughout the Critique Kant retains the view of the logical notion or concept as a product of comparison and abstraction, as having therefore that relation to the objects apprehended through it which is called in logic the relation of universal to particular. Now, it has already become apparent that neither spacc nor time can be collected from experiences: they are *a priori.* It remains to be determined (and that can only be done by examining the nature of our representations of spaee and time, their internal eonstitution) whether, as *a priori*, they belong to the type of logical notions or not. For Kant is always ready to admit that, while empirical notions are formed by eomparison of given individuals, there may be pure notions which agree with the former in the relation thought between them and individual cases.

Two features in particular of spaee and time seem to Kant to negative the interpretation of them as notions: in the first plaee, the particulars, special spaces and times, can only be represented as limitations of a single, all-embracing, spaee or time. The differenees whieh distinguish spaees and times

from one another do not constitute them individual representatives of one and the same generic type.

Again, both space and time have attaching to them an infinity which is altogether distinct from the somewhat resembling infinity which is ascribed to the logical notion: the logical notion has a certain infinity in that the marks composing its content are represented as possibly existent in an infinite number of individual cases: that is to say, the representation of general marks carries with it the representation of an infinite number of partial ideas, part of each of which is this common substratum. On the other hand, the infinity of space and time is that of internal quantity: every portion of space must be represented as alongside of others to infinity: the infinity is that of the number of parts: we represent to ourselves an infinite number of parts, not an infinite number of partial ideas.

These two characteristics of space and time—that they are represented as infinite wholes and that special spaces and times are parts arrived at, that is to say, only to be represented by, limitation of the underlying whole—clearly show that space and time are not logical notions, not discursive concepts. They must be assigned, then, to sense, not to understanding; and, indeed, these characteristics are just what we find in the intuitions of sense, and find nowhere else.

Space and time, then, are in the first place forms, that is, arise from mind as one of the factors in experience, and, secondly, are in their nature intuitive. Undoubtedly more is required than what has so far been reached by analysis of sense in order to make out the meaning and justification of the further proposition that space and time are themselves intuitions. In strictness indeed it might be argued that, according to Kant, they are not intuitions, and that we only represent to ourselves space and time as objects, and so

make them intuitions, by the help of understanding and notions. Space in itself is never an intuition and never an object apprehended by us: space as an object of apprehension is only constructed by us, and involves therefore all the components of the apprehension of an object; namely (1) material of sense, (2) the formal conditions of sense, and (3) understanding.

The Transcendental treatment, which in respect to time Kant rather confuses with the metaphysical, arrives at similar conclusions by an indirect route. Taking for granted that we are in possession of certain propositions which are at once synthetical, and only conceivable as universal and necessary, Kant puts the question, How is it possible to find a foundation for such knowledge? Experience in the sense of the separate data of perception is wholly inadequate to account for the universality and necessity of such propositions. They do not arise from analysis of our notions, whether those be empirical or pure, for in character they are synthetical. Here the remark may be made that, in the long run, there is only one feature which defines for us what Kant means by Synthetical. The general notion of extension beyond what is given in the subject is far too vague. Kant really means by Synthetical that, in order to justify the relation asserted, reference must be made to intuition.

If synthesis, then, involves appeal to intuition, and if intuitions, as regards the material in them, can furnish no foundation for the propositions we are considering, there remains only as possible foundation the form of intuition. This form has indeed the characteristics which enable it to serve as such foundation: the forms are universal, they constitute a constant contribution from mind to experience; they are necessary, for without them experience is impossible; and, though so intwined with sense-intuition that they must be said to belong to that function of

mind, they are yet freed from the variability of its material, they are pure. If therefore it be possible to reach a knowledge of sense-objects which is universal, necessary, pure—and so much seems to be evidenced by mathematical science—the ground for that lies in the character of space and time as pure, universal, necessary, forms of all sense-intuition. They render possible pure synthetical knowledge, and at the same time define the limits of such knowledge.

In the latter portion of the Transcendental Æsthetic Kant approaches the consideration of certain difficulties which may be raised with regard to his doctrine of space and time, and, in connexion therewith, is led to define with some precision the terms Real and Ideal as employed in reference to space and time. His doctrine is readily interpreted as a variety of Subjective Idealism. If space and time are just modifications of our way of thinking, then it appears natural to conclude that the varied world of objects in space and time is robbed of its reality. Nothing, Kant insists, can be more contrary to the genuine character of his doctrine. Space and time are parts of experience; they are real in the fullest sense of the term. It is only if we introduce into our conception of objects of experience a natural but quite illegitimate distinction, only if we oppose to one another the things of experience as objects of our apprehension and the same things assumed to be divested of all relation to our apprehension—things-in-themselves, in short—that we proceed to object to the doctrine that it makes everything ideal. Undoubtedly, with respect to the hypothetical realm of things-in-themselves, space and time are to be regarded as ideal: that is, they have validity and place only in the experience, nay more, only in the sensuously-determined experience, of a thinking being. If the conception of things-in-themselves is justifiable at all, then undoubtedly it carries with it as

consequence that, if 'real' means existing as part of the system of things-in-themselves, space and time are not real, are ideal only. On the other hand, if our reference be to the realm of what is apprehended in experience as objects of sense, if 'real' means having a place in the system of experience, then space and time are just as real as the so-called objects in them, nay, if the expression be allowed, more real, for they render the apprehension of such objects possible.

It is then with a conflict of thought respecting the meaning of the term 'real' that Kant is here occupied; and the conflict, as he conceives it, is between the representation of a world of things-in-themselves (that is, the very objects of sense, of ordinary experience, represented as existing without relation to the apprehending mind, but in the same fashion, with the same relations to one another, as in experience), and, on the other hand, the conception of a world of phenomena (that is, of objects which cease to have intelligible meaning for us when regarded as out of all relation to the apprehending mind). Within experience, then, space and time are real. They are even to be called components of the objects of experience. In application to the hypothetical realm of things-in-themselves space and time are ideal: they are not components of such things.[1]

[1] Kritik, Tr. Aesth., § 7; cf. Stirling, Text-book to Kant, pp. 153 f., 378.

CHAPTER IV.

THE NOTIONS OF UNDERSTANDING.

What we may call the metaphysical account of understanding, the description of its operation taken quite generally, is approached by Kant from the basis of the distinction between mere receptivity of sense and the activity of thought. Sense-presentations and thoughts are distinct in nature and in origin; yet, though distinct, they are in this respect interdependent, that only through the combination of both is experience or knowledge of objects possible. "Intuitions," in Kant's well-known expression, "without notions are blind; notions without intuitions are void."[1] A notion has no other connexion with reality than is given through its connexion with an intuition. Relatively then to reality a notion is rightly described as a 'mediate cognition.'

If, now, following the analogy furnished by the Æsthetic, we assume that in the conjoint work of sense and understanding there will be found on the side of understanding, just as there was found on the side of sense, a form, a set of conditions, dependent on its very nature, and constituting therefore the foundation for *a priori* knowledge, we may get a clue to this form of understanding by investigating the general operation of thought as mediate cognition. In this

[1] [Kritik, A, 51; B, 75; M, 46.]

aspect thought or understanding is always exercise of judgment: the intuition is determined by a notion, and thereby becomes for us an object known.

Now, in logic this general function of understanding receives recognition: there being made there, however, complete abstraction of any reference to the matter of knowledge, and therewith of any problems respecting the possibility or range of knowledge. The forms of judgment may therefore be taken as expressing the distinct ways in which the unity of understanding, the determination of a subject by a predicate, is attained; and Kant thinks that the fundamental differences discoverable in the types of logical judgment indicate differences in the way in which any possible subject is determined by thought. It may be determined in respect to Quantity, where the differences are those apparent in the quantity of the proposition as universal, particular, singular; or in respect to Quality, as in the differences of positive, negative, and limitative or infinitive; or in respect to Relation, as in the differences which are expressed in the categorical, hypothetical, and disjunctive propositions; or in respect to Modality, as expressed in the problematical, the assertoric, and the necessary judgments.

Now Kant seems to think that, if we specify more exactly the problem of knowledge, if we proceed to ask, In what ways can thought determine the material presented to it in intuition? the answer will be contained in the corresponding modification of these twelve distinctive features or characters of judgment: the bare undetermined object presented in sense-perception becomes known when it is determined by understanding in or through these various features, characters, or notions, to which he gives the name Categories. It must be apprehended as having some determinate quantity: as a totality, a plurality, or a unity; as having some qualification: whether as positive, that is, real, as negative, or as

under limitations; as standing in some relation to other objects of experience: either in the relation of substance and accident, or in that of cause and effect, or in that of reciprocity; and finally as in some relation to the apprehending subject: as having an existence possible or impossible, actual, necessary or contingent.

The second mode of treatment concerns mainly what Kant calls here the justification of the Categories. By that he means the exposition of the place they hold as conditions which render knowledge possible. It is to be observed that with full consciousness Kant contemplates and rejects a variety of explanations which might be, or had been, offered of something resembling the Categories. He rejects, for example, anything of the nature of a 'physiological' deduction of the Categories:[1] he means a psychological deduction. It would not be sufficient in his view to justify the Categories were we to show that they spring up naturally. What is altogether peculiar to them—their function as rendering knowledge possible—would be overlooked and become inconceivable in any such explanation. It would be a *ὕστερον πρότερον*.

Equally definite is his rejection of the explanation which consists in ascribing these ideas to mind as somehow possessing them from the outset.[2] Such possession of innate ideas could never as a hypothesis make clear to us how they play the part they do in rendering knowledge possible. By this, I suppose, Kant means that the hypothesis would only justify us in saying that the contents of mind consisted of innate ideas and the portion given by experience, these being, so to speak, mechanically severed from one another, but that it would not enable us to understand how the two worked into one another as supplements, as constituting together

[1] Kritik, A, 87; B, 119; M, 73.

[2] [Cf. Ueber eine Entdeckung u. s. w. (1790); R, i. 444 f.; H, vi. 37 f.]

knowledge, as being, therefore, so to speak, in organic connexion.

Kant is also forward in rejecting another hypothesis which resembles that of innate ideas, the hypothesis that the mind has somehow a structure which is adapted to the reception of the objects furnished in experience.[1] Such a view would not only deprive us, Kant thinks, of any basis on which to defend *a priori* synthetic knowledge, and make everything contingent; it would still leave untouched the all-important problem, how this pre-experiential constitution of mind co-operated with experience in rendering knowledge possible.

The deduction or justification of the Categories rests in the long run on the determination of what is involved in the indispensable act of synthesis which is required in addition to the material of sense-perception in order to render any knowledge possible. In the treatment, I imagine, we shall find that Kant is combining two points of view very hard at any time to keep separate, but of the existence of which we must take note. On the one hand he is endeavouring to give an analysis of the act of 'being aware'—an analysis, therefore, which is conducted, so to speak, from within, and in which abstraction must be made from all reference to the various ways in which experience comes about for us. On the other hand he has to occupy the relatively external position, and has to introduce the consideration of the ways in which our experience is given.

In the treatment in the first edition of the Critique the latter point of view is on the whole the more prominent; and, though it is truly the less adequate, there is a certain advantage in surveying the process of knowledge from it. If, then, we look at knowledge *ab extra*, so to speak, the first

[1] [Kritik, B, 167; M, 102; Müller, i. 461.]

point to be noted, according to Kant, is that sense-intuition as given cannot constitute knowledge. Each moment of sense-perception must be regarded as though it were an absolute disconnected unit. And to be aware or have knowledge at all implies some connectedness, some combination of unit with unit.[1]

It would not be unfair, I think, to say that Kant is here, and rightly, insisting on one elementary condition of consciousness. Without some combination of varied contents (and in accordance with the formal law of time such variation can only come about in different moments of time) there could be no consciousness, no awareness of an object; and we may make — Kant so far does make — complete abstraction from all questions that may be raised regarding the psychological or physiological conditions which must be present in order that such elementary crude synthesis of a multiplicity should come about. It may be that what is here referred to is what we name in Psychology retentiveness, and also the physiological properties of the underlying nervous mechanism which render retention itself possible. But when we try to look at the act of being aware from within, we may disregard these external conditions.

A certain combination or synthesis of the units of given material is the first and simplest condition for the advance towards the representation of an object. Such a simple synthesis—Kant calls it 'synthesis of Apprehension'—may be either empirical or pure; and, in the latter respect, it is a condition necessary for any knowledge on our part of the formal element of intuition, space and time. It must therefore always be kept in view that, in consequence of the peculiar character of this formal element, there is possible a synthesis which in one respect is quite independent of empirical material.

[1] Kritik, A, 97; Proleg., tr. Mahaffy (1872) App. A, p. 193.

This simplest type of combination concerns no more than intuition, the mere reception of material, and, therefore, so far what has been said of it applies only to the isolated intuitions. But really involved in it, though becoming more distinct when taken separately, is a further condition, which concerns imagination, namely, the Reproduction of what has been presented in intuition. Without such reproduction no knowledge of objects at all would be possible; nay, further, were it not that such reproduction takes place in definite ways, so that, as it were, imagination is subjected to a law, our experience would never reach the grade of knowledge. Here, again, it is to be noted that the combination of past and present contents is either empirical or pure: in respect to the latter the same reproduction is a condition on which depends the possibility of any generalised notion of space and time. It is to be added that, since all our intuitions have space and time—the latter at least—as constant factors, provision is evidently made for what may constitute in respect to them a generalised or *a priori* knowledge. That is to say, if there be conditions under which combination in reproduction is determined, these conditions would furnish common or universal propositions respecting the sum-total of what is empirically given.

But, now, a third element, a third type of combination, is necessary. It is latent in, involved in, what has been referred to as Reproduction. Reproduction is possible only in so far as there is unity of consciousness in the present and reproduced contents of mind. Contents of mind reproduced can only form with the present the means of knowing if, and in so far as, they constitute together parts of the consciousness of one and the same subject. Now, this condition has a double aspect: on the one hand, we say unity of consciousness is involved in the putting together of the parts of our experience; but on the other hand, such unity of conscious-

ness is only realised in so far as the subject is aware of that connexion between the parts of his experience which, as we say, becomes possible through unity of consciousness. Now, it is in this second reference that Kant finds the altogether peculiar and unique feature of experience: that combination in the contents is what he calls a concept or notion. It is the representation of a general law or order according to which the several representations are combined in one and the same consciousness. Here, again, the combination is possible in respect both to empirical material and to the pure form of sense-experience—space and time. With regard to the latter, it indicates that only in and through the representation of a definite order or law of combination of the space and time elements is it possible for a subject to be aware of his own permanent continuous identity. Thus it will be seen that the necessity for the representation of a general law or order in experience, so far at least as its space and time element goes, is but another expression for the necessity of consciousness of self and identity of self as a condition of experience.

Moreover—and this is perhaps the most critical portion of Kant's work—the representation of a determined order in experience is precisely that which we are in search of as the representation of the object. The object, it must be remembered, so far as our experience is concerned, cannot be taken to be a something altogether beyond experience; or, as one might say, it is not the object in the sense of an existing thing that we are trying to explain: what is sought to be cleared up is the exact meaning for a self-conscious subject of that point to which he refers the given contents of his experience—that is to say, his representation of the object. Now, taken quite generally, Kant says, the object is nothing but this correlative of unity of consciousness, namely, definite order in the given contents

of experience. If we seek to determine it further, we find we have no means for doing so. We can as little get behind the rather blank general conception of object to which we refer detached perceptions as we can get behind the unity of self.

In this rather elaborated account of the function of thought Kant has reached the result which, in the second edition of the Critique, he puts forward in a more condensed fashion. There he simply points to the fact that unity of consciousness is indispensable for knowledge. If apprehension of object is to be at all possible, then it is necessary that the apprehending self should be aware of its own unity in the various representations by means of which it apprehends at all; and this, says Kant, is an analytical proposition; but, he proceeds to point out, the unity, though we can see from the mere notion that it must be in knowledge, is realised in consciousness only through the synthesis or combination of the given elements—a synthesis or combination of which, therefore, the subject is aware.[1] Synthesis or combination is

[1] ["The mere form of external sense-intuition, space, is by itself no cognition at all; it gives only the manifold of intuition *a priori* to a possible cognition. But to cognise anything at all in space, for example, a line, I must draw it, and accordingly bring about synthetically a determinate connexion of the given manifold, so that the unity of this act is at the same time the unity of consciousness (in the notion of the line); and thereby, first of all, is an object (a determinate space) cognised. The synthetic unity of consciousness is accordingly an objective condition of all cognition, not merely one which I myself require in order to cognise an object, but one under which every intuition must stand *in order to become an object for me;* because otherwise, and without this synthesis, the manifold would not be united in one consciousness. This last proposition, as remarked, is itself analytic, although it makes synthetic unity the condition of all thinking; for it says nothing further than that all *my* presentations in any given intuition whatever must stand under the condition under which alone I can ascribe them to the identical self as *my* presentations, and accordingly can grasp them as synthetically connected in an apperception, through the general expression 'I think.'"—Kritik, B, 137-8; M, 85; Müller, i. 438-9.]

never given: wherever it appears it argues an activity of mind itself; and the activity here, the representation of a general order which is necessary in order that unity of consciousness shall be possible, is the activity of thought. In truth, it would have been an advantage had Kant always offered his definition of thought as the result of this determination of the function it discharges in experience. We should then have been entitled to regard the name 'thought' as merely a collective or general expression for something which comes about in our consciousness, and so have avoided the evil implications of the antiquated doctrine of faculties.

The function of understanding, then, is identical with the supreme condition of all experience—that the parts thereof should be brought together in unity of consciousness. Now, in the case of the human understanding, Kant is forward to note, the contents of experience are given from without. The function of understanding, therefore, seems to impose upon the given material a form which so far might be said to be independent of it, even foreign to it. It is conceivable that an understanding should exist whose active function supplied at the same time material to itself. The impossibility of this in the case of the human understanding both suggests the idea of an understanding of the other type, and also indicates to us that, as a consequence of the relation in which it stands to given material, our understanding may find a limit.

The function of understanding is, then, to impose upon nature intelligible form; and Kant therefore says, with due recognition of the paradoxical character of the assertion, that it is the understanding that makes nature—makes it in its formal or intelligible aspect. From this it follows that, just as space and time afforded the possibility in respect to intuition of *a priori* knowledge, so understanding, in respect to nature at large, affords the basis for such *a priori* know-

ledge as we can reach. The general, all-comprehensive, principle of such *a priori* knowledge is that all parts of experience become possible only under the conditions which render unity of self-consciousness possible.

From this point Kant takes his next step in a manner which must always seem to us needlessly confusing. The function of understanding has been described in quite general terms, and we have seen that it furnishes the basis for *a priori* knowledge. How far, we have to ask, are these possibilities of *a priori* knowledge capable of realisation? The answer, one would have said, is determined already by the distinction drawn between the pure and empirical factors of intuition. For our understanding has nothing on which to operate but intuition, and therefore the pure syntheses which express its necessary conditions must obviously be realised in the *a priori* factor of intuition, space and time; and we have to ask, What syntheses or combinations in the formal element of intuition are necessary in order to constitute a world of experience in which the subject is conscious of himself?

Kant, however, takes a somewhat more roundabout road. Representing the question as the application of understanding to empirical material, he dwells on the difference of kind between a thought and an intuition—the one perfectly general and abstract, the other individual and concrete,—and raises the very needless question, How can such heterogeneous factors operate in conjunction? To this question his answer is: They are enabled to co-operate owing to the presence of an intermediate factor, a factor which has on one side the generality of the notion, and on the other side the individuality of the intuition. Such intermediate factor is a determination of the formal element of all sense-experience, namely, time. To this determination of time as an instrument for pure *a priori* knowledge Kant gives

the technical designation, the Transcendental Schema. By 'schema' generally he means the representation of the rule or method to be followed in constructing an intuition, and he points out that schemata of various degrees of generality constitute the meanings of most of our general terms. The Transcendental Schema is that definite rule of combination in the general contents of time which is necessary in order that a subject whose experiences come in time should be aware of his own identity. The Schemata are transcendental because their nature indicates the function they play as foundation for any *a priori* knowledge.

The object apprehended, the object of experience, is always a construction; it is a product of thought and intuition, and in it therefore will always be detected, on the one hand, the pure operation of synthesis—the work of understanding—and, on the other hand, that result of combination which presents itself as a character, a determination, of the content apprehended.

Now, though it is possible for us to form the idea of an understanding taken *in abstracto*, that is to say, to represent quite generally the process of synthesis, yet such understanding is a mere idea. We cannot in truth say more respecting it than that the process constituting it an understanding will be in its nature synthetic: actually, synthesis of the understanding is for us only representable in the conjunction of understanding and sense. The process of synthesis we must contemplate as exercised in and upon sense-intuition, for no other material is given to us. Such sense-given material may be either inner or outer, and we accordingly construct objects which are either those of external nature, so called, or of the inner sense, by which, I think, Kant means the empirically determined concrete or individual subjects or minds.

The question then arises, To what extent does this necessary conjunction of sense and understanding enable us to lay down

a priori any propositions with respect to experience? Kant, without perhaps discussing the point as fully as it requires, proceeds on the ground that such *a priori* judgments are possible just in so far as intuition itself contains elements that are pure or formal. Synthesis that is general in kind, that imposes therefore a universal and necessary determination on objects of experience, must concern, and can concern, only the formal element in sense-given intuitions. Now, all intuitions present the formal element of time. It is therefore specifically in so far as there are definite ways in which combination or synthesis takes place, that is, ways in which self-consciousness is possible for a subject whose experiences are all in time, that there can be said to be pure *a priori* knowledge relating to experience. What we have hitherto called the Categories will now present themselves as those objective features which all matters of experience must present in so far as they are apprehended by a subject aware of his own identity. To use Kant's technical language, the schematised category is the real objective predicate of all things in experience. The pure category is only our representation of the general action of understanding which is embodied in the formal element of time, and actually presented as the schematised category.

These Schemata become more comprehensible when viewed in relation to what Kant calls the Principles of Pure Understanding, that is, the general foundations of all knowledge respecting objects of experience in general or at large. Such principles are just the explicit statement of what is contained in the representation of the synthetic work of understanding as embodied in the appropriate schemata. They will be found to concern objects in the four respects in which they fall to be considered as making parts of the special experience of an apprehending subject. In the first place, all

sueh objects have the formal aspect eonsequent on the conditions of intuition—time and spaee. In the second place, all sueh objeets have an aspeet expressing the dependence of the objeet of experienee on sense-affection. In the third plaee, all sueh objeets are represented as in relation to one another, as existences whieh may or must stand in certain relations to one another. Finally, all sueh objects as existenees stand in relation to the apprehending subject: they are objeets for him. Kant distinguishes the first two aspeets from the others. The latter involve the special feature of existence; the predieates which there appear are various modes of cxistenee. On the other hand, the first and seeond aspects concern only the features of possible experienee, and are so far independent of any question as to the existenee of objects. The distinction does not appear to be of any great moment. The differenees it constitutes eoneern only the elaboration or development of the scientific knowledge whieh rests upon the principles as foundation. There is a differenee, aecording to Kant of great moment, between mathematieal seience, which rests on the first two prineiples, and physieal or natural scienee, which rests upon the other principles—practieally on the third.

The prineiples relating to the first two aspeets Kant ealls the mathematical, the others the dynamical. The prineiples themselves he arranges under special titles: (1) the prineiple of all Axioms of Intuition, meaning by axioms sueh propositions as ean be laid down on their own evidenee; (2) the prineiple of all Antieipations of Perception; (3) the prineiple of the Analogies of Experience; and (4) the prineiple underlying the Postulates of Empirical Thought in general.

The first is the simplest: all intuitions are extensive quantities; that is to say, any object of intuition presents and must present the aspect of a whole made up of parts;

and the ground of this principle is obviously the condition under which alone combination of the material of intuition, in order to constitute an object at all, becomes possible. Putting part and part together is the process by which any intuited object enters into experience. Every object of intuition, then, is an extensive quantity. On this—a real and necessary determination of the content apprehended, an objective feature therefore—is founded at once the possibility of mathematical science and, what is of more importance, the applicability of mathematical principles to all objects of experience.

The second, the Anticipations of Perception, is much more difficult. The fact to which it refers is the necessity of the empirical or material element for any real intuition. There must be a certain filling-in of sense. But now Kant desires to point out that in the apprehension of this real factor, just as in the apprehension of the formal element, there is involved an act of synthesis which appears as a characteristic, a determination, of the content apprehended. The act of synthesis resembles that of generating a quantity of the extensive kind, but with the important difference that, instead of proceeding from the parts to the whole, we are bound, in consequence of the nature of sensation, to proceed from the whole to the parts. The given sense-factor is therefore necessarily conceived of as a quantum, but yet not as a quantum made up of parts which are, so to speak, outside one another; it is a quantity, not extensive, but intensive. Now each grade of intensive quantity is what we call degree. Every intuition, then, that which we apprehend as the real factor in sense-experience, has degree: the real is therefore always and necessarily represented by us as having degree — degree of reality.

There can be little doubt that Kant is here referring to the discussions concerning two different conceptions of matter.

On the one hand the mechanical conception tends, and must tend, to represent matter as an extensive quantity, as therefore made up of parts, each of which is distinct from the others, as outside of them. On the other hand the dynamical conception of matter insists on representing it as not made up of parts but as capable of infinite variation within any, even the smallest, limit of space, and as therefore possessing a plurality, which nevertheless is not that of extensive quantity. The decision in Kant's mind appears to depend upon the ground, which is of doubtful adequacy, that sensation in us cannot be regarded as a mechanical product. A more intense sensation, for example, is not capable of being resolved by us into separately existent parts; it is not a sum-total, but has its own indefeasible unity. Yet as the sensation, despite its unity, may pass through gradations of intensity, it must be regarded as having a plurality. This may be true enough about sensation, but it hardly seems to warrant the important conclusion which Kant draws respecting the real constitution of what he calls 'material objects.'

The Analogies of Experience, Kant points out, have this peculiarity, that they do not concern separate intuitions. Axioms of intuition and anticipations of perception concern respectively the formal and the real components of each possible intuition, and therefore the mark, feature, or character, which corresponds to the synthesis of thought there involved, presents itself as a part of the content apprehended. Quantity, whether extensive or intensive, is, and may be treated as, a feature, attribute, mark, of the quanta. On the other hand existence is never a component of what is presented, nor is it ever capable of being regarded as an attribute, a characteristic, of the object which is represented as existing. Existence must, therefore, present itself in our consciousness, thought, or experience as in

some way a determination of the relation in which objects stand to one another or to our faculty of apprehending them. With respect, then, to all conceivable knowledge of existence, there is a certain indirectness in the method of determining it; and on this account particularly Kant is led to use as title for one group of fundamental principles that of 'analogies' of experience.

By this I think he meant two things. In the first place, assuming that we find ourselves possessed of certain *a priori* principles in accordance with which we determine the relations of objects to one another, these principles will only extend to determination of the general rule of such relation; they will not enable us to determine, so to speak, in the concrete, the particular nature of any object. Where terms are given to us of the mathematical kind, as in a proportion where three terms are given, it is possible completely to determine the fourth term; but where the one relation is perfectly general or abstract, while the third term is a concrete, our data only enable us to express the general relation in which the fourth term must stand to the third.

A second significance of 'analogy' concerns rather the relation between the pure category and the schematised category. Kant appears to say that we are unable in the case of experience to find the means of applying directly to it the pure categories which express the combining functions of thought. We are able to apply only the schematised category. Objects, therefore, can be represented by us as in such a connexion in experience as is analogous only to the pure connexion thought in the categories. This second significance is, I think, of no importance at all.

Proceeding to the actual conditions of experience, it is to be observed that all analogies, all general rules whereby the

relation of objects to one another may be determined in experience, must of necessity be rules according to which there becomes possible the representation of objective order in time. Kant's business is, first, to analyse the nature of this representation of objective order in time: an analysis which corresponds with the metaphysical analysis of space and time in the Æsthetic. He has, then, to point out that the conditions which appear in this analysis are just those under or through which it becomes possible for the thinking subject to be aware of its own identity in time. It is to the first of these two parts of the problem, unfortunately, that he devotes by far the larger portion of his work.

Now, the representation of objective order in time, taken generally, that is, without reference to the special modes of time, involves no more than the perfectly general principle which has already appeared, that objective order as represented is a necessary or determined order of our representation. The conception or representation of Object is, as Kant has pointed out, the thought of that which determines our experiences in a general, universal way, according to a rule. In the case before us we have therefore in detail to ask, What are the features of the representation of a determined order in time? Now, the three modes of time, says Kant, are Permanence, Succession, and Coexistence. It might have been better to have said that the three ways in which objects can present themselves as in time are (1) as enduring, (2) as successive, and (3) as coexisting, because, in fact, as Kant has to point out, time itself is not an object of experience, and his argument presently will be found to turn largely on the consideration that what we call determination of the time-relations of phenomena is not and cannot be brought about by relating these phenomena to time.

Taking the first of these—Permanence or Duration—our question is simply, What constitutes the representation of

duration in the object? All our representations are doubtless in time; but from them alone objective duration is unintelligible. Our representations, simply as such, must be taken to be always successive; and, as has been already established, without the addition to our representations of the reference to object, and therefore the conception of an objective order, unity of consciousness is impossible. What, then, is the representation of objective duration? It is not the representation of time, for time is no object of perception, and we cannot date events by referring them to time. Time is no doubt the constant correlative of all phenomena, but we have no representation thereof; and therefore it is something distinct from time itself that enables the dating of events in time to become possible. The representation, then, which renders possible objective time is that of the object or phenomenon itself as enduring. A permanent or enduring phenomenon, that which serves, therefore, as substratum to changes—the representation of this is necessary in order to constitute objective order in time at all. Now, such objective order is itself necessary as a condition of unity of consciousness. We have, therefore, as a principle of as great generality as is possible within experience, that only through the permanence of the phenomenal substratum of changes is unity of consciousness and therewith experience itself possible. Such permanence Kant regards as justifying the highly important scientific principle that the quantum of the substratum of change is neither increased nor diminished in nature, but is constant.

Another aspect of time-changes is the order of Succession. Our second question then is, What constitutes the representation of objective succession? What is the special meaning of the notion 'sequence' in the object? My representations may doubtless be said always to come in succession; but obviously in experience I distinguish from

such succession sequence in the object represented by them. What exactly is the meaning of this representation of objective sequence?

With a whole cloud of unnecessary words, Kant gives the answer: It is the representation of a regular or constant order in perceptions, such that, certain events having preceded, the subsequent event is thereby determined. Without the representation of such objective order unity of consciousness is impossible. A subject aware of his own identity through shifting changing states has always, as the correlate thereof, the representation of an objective order, of a ground according to which, by reason of which, his representations are determined. In respect to time and the special mode of time—sequence—this correlate is the representation of a determined order of the changes which occur, an order, therefore, let it be noted, which is determined not by time but by the events in time: the mere representation of time imposes no order, nor is it really a representation which we possess.

Kant sums up this result in the principle: "All changes come about according to the law of connexion of cause and effect." It will be observed, therefore, that, according to Kant, so far as cause and effect have any possible interpretation in terms of experience, they mean regular constant sequence of events in time, and nothing more.

Duration and sequence are not the only modes of connexion in time. There remains still Simultaneity or Coexistence in one and the same time. With respect to it Kant's question is, What precisely is the content of the representation of objects as existing together in one and the same time? On the strength of the first analogy Kant evidently assumes that the coexistence here investigated is that of substances, of permanents—'things,' as we call them—in contrast to their changing states or properties. What, then, is involved

in the representation of such substances as existing together in one and the same time?

Kant leads up to his answer by pointing to the empirical criterion by which we distinguish between successive perceptions of objects that follow one another and the perceptions, likewise successive, which nevertheless are taken by us to constitute apprehension of coexistent objects. The latter have the peculiarity that the sequence may be taken in either order. The perceptions by which I apprehend the coexisting objects A and B may begin from A or from B. Thus he effects a slight transformation of his question. It now becomes, How must we represent objects in order that their relation to one another shall render possible this reversibility in the order of our perceptions? and his answer is, We must represent the objects as mutually or reciprocally determining, as standing, that is, in such a relation to interdependence that the position in time of the one is determined by the position in time of the other. "All substances, in so far as they can be perceived in space at the same time, exist in a state of complete reciprocity of action." Note here the introduction of the qualification 'in space.' Kant's problem, it is obvious, really concerns only the external object perceived, and the principle of reciprocity, therefore, that is, of complete interdependence, extends only to nature as the sum of external phenomena. Now, though the qualification 'in space' is here introduced explicitly, it has been implied throughout the previous analogies, and Kant in a general remark on the principles of judgment points out as something noteworthy, that an indispensable condition for the principles is external intuition.[1]

Take it as we please, even with the important limitation which Kant introduces, the principle of reciprocity must cause some hesitation when we are asked to consider it as

[1] Kritik, B, 201; M, 176; Müller, i. 482.

expressing a condition necessary for unity of consciousness. It is a very elaborate thought, and there is something startling in what seems to be a consequence of Kant's treatment of it: that such a notion is the condition without which apprehension of the coexistence of objects in space would be impossible. Our ordinary experience, which no doubt is very confused, would seem rather to force the conclusion upon us that only after, and on the basis of, apprehensions of coexisting objects in space do we arrive at the conception of a united nature in which all coexistent objects are determined parts of the whole.

The fourth group of principles of judgment concerns the relation of the object apprehended to the function of apprehension itself. The categories applied in this connexion are the modal categories through which nothing is determined as regards the content of the object itself, or even its relation to other objects, but through which are represented the various ways in which conceivably an object may stand to the apprehending subject. Kant calls the principles which emerge here the Postulates of Empirical Thought. We already know that an object requires (1) material of intuition, (2) the forms of intuition, and (3) connexion through notions with one and the same whole of experience. Our problem then is to ask with respect to the thought or notion of any object, what is required in its regard in order that it shall represent a merely possible object, or an actual object, or a necessarily existing object: for these are the three ways in which the conception of an object may be further determined. Such further determination lies outside the conception of the object: nothing is added to that. The object represented as possible, as actual, as necessary, is represented as just the same object. The further determination concerns the way in which the

object represented stands to the experience of a conscious subject; and there are three ways in which it may thus stand, in which it is further determined. (1) If it is represented as merely conforming to the formal conditions of experience, that is, if it be represented as an object which could occur within the range of intuition limited by space and time, and be thought through understanding, then it is represented as possible. (2) If it is represented as also conforming to the material condition of experience, that is, to the given element of sense-intuition, it is represented as real. (3) If it is represented as in such a relation with what is real as conforms to the general conditions of all experience, it is represented as existing necessarily; for instance, what is represented as in the relation of cause to what is real is represented as necessarily existing. In no case do any of these further determinations—possibility, actuality, necessity—go beyond experience. Necessity, for example, the most ambiguous of them, means necessity within the system of possible experience: we cannot determine as necessary anything which is not connected with an actual fact in such a way as is required by the fundamental conditions of experience itself.

In the course of the discussion of these modal predicates Kant comes again in sight of the important part played in the system of knowledge by space. According to his definition of the actual, there would be no ground for discriminating between the actuality of an object of external intuition and that of an object of internal intuition. In both cases and with equal immediacy there is the given element of sense; and, therefore, the perception of the actuality of the external object rests on the same ground and is as immediate as the perception of an inner object. Kant is willing, desirous even, to go further: not only does he reject the customary view of external perception as inferential, but

he points out that the apprehension of the actual, as that which is in space, precedes the apprehension of our own inner existence and is the condition thereof.

In this way the analysis of understanding terminates with the conception of the realm of assured knowledge, knowledge that rests on *a priori* grounds, as being that of external nature. Self-consciousness becomes possible in and through the conception of an orderly connected whole of external nature. The world of mechanism, as we may call it, of which the units are extended quanta, and in which the relations are those of cause and effect and reciprocal determination, this world of mechanism is the correlate of intelligence that is conscious of itself. What is *a priori* in the conception rests upon the relation of it to consciousness as its condition. Within this realm of determined existence knowledge is possible. Beyond it knowledge is impossible; and our notions which, owing for the most part to the independence of their source—understanding—seem capable of application beyond the limits of sense, have, when so extended, no objective validity at all. It is true that the recognition on our part of this difference between understanding and sense, and of the limitation which the latter imposes on the former, forces upon us the thought of an understanding other than ours, which should not be so limited; but of such an understanding we can hardly even be said to have the notion. Such thought as we have of it is at all events negative rather than positive.

The same reflexion compels us to regard our understanding as having its own special character and its own special limit, and therefore again suggests to us the thought of an understanding whose notions should veritably constitute the apprehension of things as they are in themselves. Our notions, however, have application only within the limits of experi-

ence; and the very thought of the things in themselves which might be apprehended through notions is but the representation of the limit imposed on our faculty of knowledge. The conception of the thing-in-itself is therefore, as Kant calls it, a limiting or problematical conception. If, as is natural, we conceive of things in themselves as objects of a kind of apprehension which is direct, like intuition, but which is not sensuous, then it must be remembered, the conception of such intelligible objects is perfectly void: it has no definable content, and the objects cannot even be described legitimately as possible. Nevertheless, a confusion will always arise between the two ways in which the thing-in-itself is thus forced upon our thought, a confusion between its legitimate significance as pointing to the limitations of knowledge, and the illegitimate interpretation by which it is regarded as the object of direct knowledge that is not under the limitations of our understanding.[1]

[1] See also Proleg., §§ 40 ff., 56, 57.

CHAPTER V.

THE IDEAS OF REASON.

KANT starts his account of Reason by defining the place it holds in respect to Sense and Understanding. All our knowledge, he says, begins with sense, proceeds thence to understanding, and ends with reason: sense being here taken as giving the objects, understanding as relating them to one another in such modes as render knowledge of them possible, while to reason is ascribed generally a superior function. On the one hand, reason does not deal directly with the objects given in sense, but indirectly, in that it deals with the knowledge of such objects attained by understanding: whence follows one determination of some importance, namely, that whatsoever conceptions sum up the views of reason, whatever be the notions with which it operates, these are not in themselves representations of objects. If, now, to this we seek to add a more positive determination, Kant's reply is reached, as in the similar case of understanding, by a reference to the logical function of reason. That logical function, in his view, consists in the procedure from principles by means of quite general conceptions. Logical reasoning he takes as a process in which something is brought under a principle and the conclusion is reached not by reference to concrete instances, to perception, but by mere force of general conceptions.

In accordance with this view he proceeds to define reason,

in its function as a part of our total faculty of thinking, as the faculty of principles. From this may be extracted a further determination. The principle plays the part of rounding off our knowledge, making it a completed whole. Taken generally, then, reason expresses the effort to find, in respect to the knowledge that is given through understanding, those principles by which completeness, totality, may be reached.

No doubt Kant is employing in these formal determinations the much more real foundation that appears when we consider more closely the kind and range of knowledge which is assured through understanding. Already, so to speak, externally, a certain limitation of that knowledge has presented itself. The most complete conception in which that knowledge may be summed up, that of a system of reciprocally determining substances in space, distinct from but connected with the inner life of the subject, has been seen to concern phenomena only; and Kant, without, perhaps, as close consideration as the matter deserves, seems to take it for granted that here obviously there is laid bare an incompleteness in what we may at all events desire to know.

Again, our knowledge, when looked at, so to speak, internally, and more particularly when, in accordance with Kant's view, it is remembered that knowledge proper extends only to the region of external phenomena, exhibits a characteristic imperfection: it is throughout, taken quite generally, a connexion of part with part, of conditioned or dependent with condition or ground; and thus, when regarded as a whole, it seems to dissolve into an infinite or indefinite series of lines along which regress or progress is possible without final termination.

Combining, then, these indications of incompleteness in knowledge proper, Kant reaches his most positive determination of reason. It is the faculty which seeks for unity,

totality of knowledge as such, and which must find such unity or totality in the unconditioned. From this, indeed, there follows at once the characteristic danger in the procedure of reason. It can operate only with the notions of understanding. It must strain these notions beyond their legitimate bounds; and it is compelled to interpret the idea of completed knowledge which it forms to itself, after the manner of knowledge through notions of the understanding, that is, as the cognition of some object. The criticism of reason has for its essential business, on the one hand, to point out the natural error into which reason is thus seduced, and, on the other hand, to indicate, in the consciousness of that error, the real place which the efforts of reason occupy in the whole structure of thinking. The conceptions of unconditioned totality, of unity of knowledge, which reason forms, and, as Kant insists, necessarily forms, he calls Ideas, to distinguish them from the notions proper of understanding. They are, in truth, nothing but the said notions applied in particular directions, and taken with the assumption that they contain the apprehension of the unconditioned or absolute.

It is another instance of Kant's formalism that, when he proceeds to define the lines of application of these notions to the unconditioned, he should have recourse to the logical analysis of syllogisms into categorical, hypothetical, and disjunctive. In truth, what he has before him is the familiar well-worn triad of speculative problems: the Self or thinking being, the world of objects, and the comprehensive whole of all possible reality—God.

The Ideas of Reason, then, connect themselves definitely with the subject of consciousness, the phenomenal world, and that complete reality whereby these two are brought into systematic relation with one another. In respect to each of

these reason proceeds in the same way; and the differences in the form of the Idea in which it sums up its view depend on the different character of the content to which each applies. In the case of Self, reason proceeds to form the Idea of an absolute or unconditioned substance, the final subject, from the notion of which may be understood how its various experiences, its accidents, its peculiarities, are possible. In so proceeding reason necessarily adopts as foundation that final condition of all experience—the pure unity of consciousness. In this it finds the unconditioned, the absolute condition of all inner experience; and, interpreting that, as it is bound to do, in accordance with the only legitimate meaning of the category of Substance, it frames the Idea of the self, the thinking subject or soul, as a substance with such characters as render possible its peculiar mode of existence. It is a simple substance, immaterial, incorruptible, and in quite contingent relation with external or space-related things of sense. Such is the rational conception or Idea of the soul; and, with respect to it, Kant has to point out (1) the error committed in so interpreting the procedure of reason, and (2) what real function in respect to knowledge is played by the Idea itself.

As regards the phenomenal world reason concerns itself entirely with the characteristic feature thereof—the relation of determining condition and determined conditioned. It takes for granted that where the conditioned is given there must also be given the totality of conditions by which it is completely explained. In so doing it has to employ the notions which serve the purpose of knowledge in connecting in the phenomenal world conditioned with conditioned,—conceptions, obviously, which cannot contain the completeness required for the Idea of reason. Naturally, then, in this its procedure, reason finds itself confronted always with a contradiction, on the strength of which it has to assume

the truth of the opposite notion to that in which the contradiction appears. If, for example, we find a contradiction in the supposition that a conditioned moment of time is explicable by the assumption of the completed antecedent of time, then we conclude that the opposite notion of an infinite regress of temporal antecedents is justified—an assumption in which again we find that our notions yield no satisfactory result. In dealing with the phenomenal world, then, as an object in respect to which we desire totality and completeness of understanding, our reason is confronted with contradictory and mutually destructive but equally well-founded assertions, the nature of which makes clear to us that what reason is trying to represent as an object known is not a possible object of knowledge, and that the true function of its Ideas must be otherwise interpreted. And, finally, when we turn to the ultimate unity, that complete systematic reality in which explanation is supposed to be given of all that can enter into our thought, reason finds itself confronted with a perfectly insuperable obstacle, that of accommodating the content of this Idea to any legitimate interpretation of the notion of a real object. The Idea may be legitimate, but not as the representation of an object. Its true function must consist in something else than that which it appears to be, namely, the completed representation of an absolutely real object.

Throughout the whole argument, then, it will be seen that there runs the familiar distinction already referred to between phenomena and noumena ; for evidently objects which are represented, but nevertheless are of a character which renders it impossible for them to fall within our experience, are objects of thought only. In their regard the same confusion is made as may be made with respect to the objects of sense: the latter we always incline to view as possessing in themselves, or apart from experience, just those characters

by means of which they form parts of experience. We interpret them as intelligible things. So with the Ideas of reason: they are essentially representations of things-in-themselves. The confusion into which our thought is thrown when dealing with these Ideas is the inevitable result of ignoring the distinction between the phenomenon and the thing-in-itself.

The three Ideas, then, give rise to three distinct types of confused thinking, three distinct fallacies. As regards the first of these—the Paralogisms of Pure Reason—they turn upon the confusion into which our thinking naturally falls when the effort is made to represent completely the nature of the thinking subject. Inevitably we employ for that purpose the pure unity of consciousness, which is the condition of the presence of any representation in consciousness. Quite as inevitably we then proceed to represent that which is the condition of any object in consciousness as constituting the very character of what is itself an object in consciousness, though one of a peculiar kind, namely, our own existence as persons or conscious beings. The self as an object of possible experience is just as much an object as anything in outer space. It is apprehended through inner sense just as matter is apprehended through external sense. The pure unity of consciousness can by no possibility be presented as an object. If, then, identifying these two wholly distinct elements of experience—the supreme condition of all consciousness and the concrete existence of the inner object—we seek to determine exhaustively the character of the latter, we may do so easily by transferring to it predicates which merely express the altogether unique position of pure apperception as the condition of experience. We thus illegitimately interpret the singleness, the identity, the continuity, and the freedom from empirical content, of

pure apperception as features of a special object—the Soul—which, therefore, we maintain, is always a substance, simple, single, immaterial. Not one of these predicates is possible as a part of the empirical notion, or empirical knowledge, of the inner subject in so far as it enters into our experience. No object of inner intuition can ever be apprehended as absolutely simple, single, substantial; and, undoubtedly, the very existence of the inner subject is only apprehended in and through its real relation, so far as experience goes, to outer things in space. The relation, that is, of consciousness, in the sense of the inner life, to outer things, so far as experience goes, is anything but contingent; it is necessary.

Negatively, then, the criticism of Rational Psychology, as Kant calls it, results in pointing out the mistake that is made in regarding the idea of the pure unity of consciousness as the determined notion of the inner object of intuition —the soul or thinking subject as an existent. Positively, the criticism yields the result that, with respect to the soul, we are not entitled to apply to it those predicates or forms of connexion by which we build up our knowledge of external nature; and the idea of the thinking subject as wholly distinct from the world of external fact has this regulative value, that it directs all researches into the nature of the soul by pointing out the kind of unity which we must seek for in respect to it.

In the Cosmological conceptions the peculiarity is that, in respect to the fundamental feature of the world of external fact, the determination of each part by the others, reason, desirous of attaining completeness, finds itself confronted with an insoluble contradiction. Whichever aspect of that fundamental character it selects: whether the relation of whole and part in space and time, or that of whole and part in the substantive reality of the external objects, or that of

whole and part in the chain of determined sequence—cause and effect—or that of whole and part in the reciprocal relations of things which, taken together, form nature: in each case reason constructs of necessity two quite contradictory representations. These constitute the following Antinomies:—

First, The world, in respect to time and space, has a beginning, is bounded; with its contradictory, The world as to time and space is boundless.

Secondly, as regards the matter of the sense-object, Everything in the world consists of simple parts; with its contradictory, There is nothing simple, but every object of sense, every real substance, is composite.

Thirdly, as regards the chain of causes, There are in the world not only mechanical causes but also causes which are free; with its contradictory, There is no freedom but only mechanical causation.

Finally, as regards the reciprocally determining whole, There is to be found in, or in connexion with, the world an absolutely necessary being; with its contradictory, All is contingent in the world; there is no absolutely necessary being as the cause of what is in the world.

These counter-assertions throw reason into a hopeless confusion, and there must be some source of error in the fundamental principle from which reason proceeds in constructing them. That source of error Kant finds in the assumption that what we are dealing with and seeking to determine in the only way possible to us—by notions of understanding—are things-in-themselves. If, for instance, we chose to represent the totality of objects of sense as though it were itself an object, given in its completeness, given in itself, and combined with this the assumption that the notions of understanding had perfect validity in respect to such an object, then solution of the Antinomies would be

for ever impossible. Thus, to take one case, if the series of causes were really given in its totality as an object, and if we were entitled to assume as valid, in respect to that, the notion of understanding that whatsoever is presented as an object is necessarily determined by its relation to other objects, then obviously the Antinomy which presents itself in the contrast of free and mechanical causes or of necessary and contingent existence would be insuperable. Or, if the world were really given as a completed whole of space, then, assuming that the notions of our understanding are valid for it, we should find it impossible to evade the contradiction that the world must be both boundless and bounded. On the other hand, if we keep firmly to the fact that experience gives us only phenomena, not things-in-themselves, if, therefore, the totality of the world is not given as an object of experience, these cosmological ideas must be interpreted in a quite different fashion. They are no longer representations of that totality as an object, for no such object is given. They must, therefore, be understood as having reference to the procedure of our understanding within the limits of experience itself. If they have a function, and we must suppose they have one, it must consist in regulating in some way, negatively or positively, the procedure of understanding in its empirical use, in its application to the final end of all knowledge, the attainment of systematic insight.

From this point of view, then, a solution of the Antinomies is possible and necessary. The solution, however, exhibits at one point a curious and, Kant thinks, a most instructive difference. In regard to the first two, where the aspect of inter-relation bears only on the more formal and material components of intuition, criticism of the assumption made leads to the conclusion that both Thesis and Antithesis are false, and false because they seek to apply contradictory predicates to a subject one and the same, but to which in truth

they have no application at all. Were the sphere of intuition, formal and material, given as an object, we should no doubt be entitled to apply to it the opposites Bounded and Boundless, Simple and Composite. But such object is not given, and the opposition of our predicates vanishes. No one of them has any application or meaning except within the limits of experience itself; and there they imply that, in connecting part with part on the formal side—space and time—we must go on indefinitely, that nowhere within experience can we meet with a boundary to space or time, a conception which can have nothing corresponding to it in experience itself. On the material side, they imply that the object given to us, the extended thing, contains an infinite, though not numerically determinable, multiplicity of parts, that is, that in actual perception we can never reach what refuses all division.

On the other hand, the two Dynamical Antinomies, as Kant calls them, adopting the term used in reference to the principles of judgment, concern not the structure of phenomena but their existence. What we connect there as condition and conditioned need not of necessity be homogeneous, as in the case of space and time. It is therefore possible that in the dynamical Antinomies the apparent contradiction should indicate that both Thesis and Antithesis may be true, because each refers to a totally distinct subject. It is possible that they should be so, even though the arguments themselves do not justify us in asserting that they are, and even though we are unable to form any conception of how the truth of both is possible. Completeness of mechanical causation, for example, holds good, and that absolutely, with respect to the sequence of phenomena. But it is possible to form the conception, indeed it is necessary to form the conception, of an object which is not phenomenal, in respect to which

therefore there is no such ground for asserting that mechanical causation must hold good. Free or spontaneous origination of change is certainly possible in the case of an intelligible object, an object the nature of which is not restricted by the condition of phenomenal experience, that is to say, by time. The Antinomy, therefore, is so far solved by pointing to the connexion of the opposed predicates with two generically distinct subjects. The distinction of such subjects, Kant maintains, is a necessary one. We cannot determine the objects of our experience as phenomena, we cannot treat the whole of our experience as phenomenal, without at the same time forming the notion of that which is not phenomenal, that which is purely intelligible.[1]

In the same way, within the limits of the phenomenal, no object, not even the totality of objects, can be represented as absolutely necessary: in that sphere everything is capable of being regarded as contingent. But, on the other hand, the mere representation of the totality as itself contingent indicates a limit to the application of our notion of reciprocal determination, and necessitates the idea of something beyond the realm of the phenomenal, within which, therefore, the character of necessity may find a justifiable place. With this last remark, indeed, Kant makes the transition from the cosmological ideas to the final product of reason, the idea or ideal of a complete absolutely comprehensive ground of all contingent existence. The last of the Antinomies has clearly shown that such ground can only be represented in the form of an Idea: that is to say, that it is not the representation of an object of experience or even of the totality of such objects. If we call it object at all, it is an intelligible object, lying beyond the phenomenal. Such a conception is a Rational Idea in the fullest sense of the term.

[1] Kritik, A, 538 f.; B, 566 f.; tr. Mahaffy, Proleg., App. D.

The third section of the Dialectic deals with the elaboration of this Rational Idea—the representation of that which contains in itself the explanation of all the content of experience. Such a representation, in order that it shall discharge the function assigned to it of explaining, must undergo further specification. What it represents is the ground of all real existence, which must therefore be regarded as itself an existent. As explaining all else, it must contain every feature of reality; all real predicates are united in it.

'Sum-total of all reality'[1] is, however, a rather misleading expression: the Absolute is not a collective whole which, so to speak, contains real beings as its parts. Rather, it must be represented as the ground of all real existence, and its parts must be represented as coming about by limitation of it. So represented, by force of the structure of our understanding, the most real being is taken to have independent separate existence, and a mode of existence that resembles the relation of understanding to experience: it is personified. At the foundation of all such personification there rests the fundamental idea of absolutely complete being, the content of an idea; but, as existing, as supposed to constitute therefore a single existent, the idea must be called an Ideal.

The argument remains quite unaffected by any consideration of the question what special form of object is represented: that is to say, it applies equally whether the object is represented after the fashion of a physical thing or in the way in which, as Kant thinks, it will be found in the long run necessary for us to represent it, as an Intelligence with purpose.

The Idea may be arrived at in a variety of ways; and the transition which is made from the content of the Idea to the assertion that there really exists an object correspond-

[1] ['Omnitudo realitatis,' Kritik, A, 576; B, 604; M, 355.]

ing to it, may be effected in a corresponding variety of ways.

We may proceed, first, in the purely logical or metaphysical way, framing our Idea from reflexion on the relation between whole and part, ground and consequent; and our argument for the transition may be simply that, by reason of the inherent character of the content so framed, there must exist an object corresponding to it. By this method we may be said, so far as possible, to avoid experience. We introduce nothing empirical.

On the other hand, if we make our start from experience, we may do so in two different ways: either by selecting as foundation the general character of the empirical, or by selecting some special feature of the empirical. According to the former method we procced from consideration of the given world of empirical fact as throughout contingent. It has not its ground in itself. The same procedure which we apply within the empirical world to each part—namely, that we insist on explaining it by reference to something outside itself—we apply to the world of experience taken as a whole. It is contingent, and, being so, requires a ground of explanation which obviously, in the long run, must be thought as necessary. A necessary existent thus appears to be reached by a procedure starting from experience. In the latter method we select as foundation the special feature of the world of experience which is called design or purpose in nature; and, dwelling on the artful contrivances which the structure of nature seems to disclose, we proceed, on the ground that such contrivance is external to the things themselves—is, so to speak, imposed on them from without —to argue that the idea of the cause necessary to produce such an effect points irresistibly to the existence of a real author of nature.

These three ways constitute what Kant calls the Onto-

logical, the Cosmological, and the Teleological arguments for the existence of God; and, reversing the order of his treatment, though following his own hint, we may point out at once that in the long run the only argument which is fundamental, the only argument which fully advances the assumption on which the others are based, is the ontological. Each of the others has its special difficulties; but the conclusion which they seek to establish is only arrived at by introducing in the course of each the very assumption which is the nerve of the ontological argument.

Thus the Teleological has its own difficulties; for, after all, were it valid, it would only establish the existence of an extra-mundane cause, not of nature, but of the arrangements or contrivances in nature, and not an Absolute Cause but only one adequate to produce the special effect taken into account. But apart from this, which would certainly reduce the value of the teleological argument by showing its inadequacy to the whole idea of the *Ens Realissimum*, it must be observed that in its final stage the proof makes just that assumption which constitutes the ontological argument, namely, that because our thinking demands an explanation of this kind, therefore we are entitled to claim existence for the corresponding object. It may be necessary to form the idea of a designing mind, and it may be that in such an idea satisfaction is found for our reason; but it is not on that account certain that an object corresponding to our idea exists.

As regards the Cosmological argument, the result is equally clear. The argument has its own limitations: it quite illegitimately transforms the conception of the world of experience as a whole into the representation of an object; it applies to that which is not an object of experience a rule of understanding which holds good only within the context of experience, namely, that every part of experience is contingent; and thus it illegitimately treats the things of experience as

if they were things in themselves. But apart from this, in the long run, for completion of the proof, there is obviously required the same demand, the same assumption as before. Let it be taken for granted that we cannot unify our conception of the world of experience as contingent except by supplementing it with the idea of a necessary ground thereof, it requires then to be taken for granted that because of this subjective necessity, this necessity for thought, there must exist a corresponding object.

The whole brunt of the discussion, then, must be borne by the Ontological argument. Are we justified, and, if so, how far are we justified, in demanding that there shall correspond to the content of an idea, an existing object? Is there anything in an idea, even if it be the idea of Absolute Reality, that justifies the assumption of the existence of a corresponding object?

To this Kant's answer is, briefly, as follows: Existence is never a part of the content of any idea. Existence means the positing of a relation between an idea and an object. From no idea, therefore, of any kind whatsoever, when taken alone, can there ever be extracted the existence of the corresponding object. The positing of existence always comes about in a judgment, and the judgment requires an intermediary over and above the contents of any ideas whatever that may enter into it. There is, as he says (repeating, perhaps unconsciously, Hume's argument), no contradiction at all in supposing the non-existence of the object represented in any idea. A possible idea and the idea of a possible thing are quite distinct: a possible object is one that can be presented in concrete experience.

No doubt it is a fair comment on Kant's teaching here, to draw attention (as Hegel does) to the specifically limited sense in which the term real existence is used by Kant. Real existence is, for him, equivalent to 'what can be pre-

sented as a finite object, a one among many, a determined part in perceptive experience;' more rigorously, indeed, the really existent is what can be presented as an extended object in space. In respect to such objects one would naturally admit that their very finitude consists in the relative independence of their idea and their existence. Hegel applies this remark, however, to enforce a conclusion which can be accepted only with much qualification: that, in the case of the Absolute, there is necessarily that coincidence between thought and reality which is so resented by Kant. The Infinite or God is just that the thought of which is necessary: in him thought and existence coincide. But here we shall do well rather to follow out the line of thought which the interpretation of the Kantian view opens to us: that the idea of God, at all events, indicates and can indicate no object of experience; that what it does indicate must find expression in other terms than that of object. In this way we may perhaps be led nearer to Hegel's position than to Kant's; but at the same time we shall be able to see more clearly, more in the concrete, what is to be understood by an existence which is only in and for mind, which cannot be expressed in terms of object, and which yet seems to be a necessary part in the total movement of thought.[1]

The ontological argument, then, is but the crowning example of the tendency to misunderstand the Ideas of Reason. The unity which reason seeks is not to be obtained in objects; and the illusion or dialectic of reason is just this tendency to translate the Ideas, in which the unities sought for by reason are summed up, into the familiar form of objects. Reason does not directly concern objects. Its direct reference is to the operations of understanding, and its real function, there-

[1] [This paragraph, from "No doubt" to the end, is taken from lectures given in 1895-96.]

fore, is to show in what directions the operations of understanding must proceed if we are to obtain complete satisfaction, systematic unity of knowledge. In this respect the function of the Ideas of Reason is called by Kant 'Regulative': they do not determine objects; they are not themselves the conditions in the absence of which apprehension of objects is impossible; they are not therefore, like the categories, constitutive of experience; but, none the less, they have a real and important significance. Negatively, they express the impossibility of securing through understanding alone the unity, the systematic insight, after which we seek. More positively, they prescribe certain rules under which all the empirical knowledge obtained by understanding must be co-ordinated. In following out such rules, undoubtedly, we have always to guard against the illusion to which reason from its nature is liable, that such prescribed directions constitute knowledge of definite objects. The rules are in one sense subjective, in that they do not determine for us apprehension of objects; but, on the other hand, they are not subjective in the sense of being arbitrary and without relation to real empirical knowledge. They are necessary as the expression of reason, of the demand which we make for system in our knowledge; and they are helpful, both positively and negatively, to understanding in its operations.[1]

Kant applies this interpretation of the regulative functions directly to the most important problem connected with them, that of speculative theology; and his solution of that problem illustrates the peculiarly balanced nature of his general view of reason. On the one hand, it is wholly impossible to establish on speculative grounds—grounds going beyond

[1] Kritik, A, 686-7; B, 714-16; M, 420-1 (where, in the last line of the note the word "unthinkingly" is a mistranslation for "without any objection.")

experience — the existence of God. On the other hand, there is not the smallest ground for refusing to admit as an Idea of Reason the Idea of an Intelligence as the Creator and controller of the world of experience. Such more concrete conception of Absolute Reality comes about just because we find in our own inner experience something which serves, in reference to the Idea, as a scheme enabling us to contemplate the Idea in a concrete fashion. Something analogous to the scheme we are perfectly entitled to introduce and use; nay, it may be that reflexion on our understanding compels us to introduce this analogy.

While, therefore, we say, on the one hand, that the existence of God is speculatively indemonstrable, we admit, on the other hand, as justifiable and necessary for the unity of our conceptions, the representation of a relation between God and the world which is analogous to that between intelligence and its products. Within the limits of theoretical reason no further advance is possible. But this dim outline, this kind of scheme of Absolute Reality, may obtain a more definite content when brought into relation with practical reason: for there, at all events, the limit is not imposed, that the objects must be within the determined content of sense-experience. A moral theology is, therefore, at all events, possible.

The Kantian doctrine of Knowledge, then, always involves in it the reference to the realm of things-in-themselves, and it is possible to represent it in a way that gives, perhaps, too great prominence to the conception of things-in-themselves. Undoubtedly, according to Kant, the things-in-themselves — a word needlessly suggestive of plurality — operate on the human mind in accordance with the structure of that mind, or, better, under the conditions necessary for the very existence of a mind that apprehends both itself and objects. The

results of that operation are elaborated into the whole context of experience. Such experience is always phenomenal, and throughout it there runs a distinction which ultimately points to the diversity of sources whence its character is determined. For throughout experience there is discernible an opposition between the general or universal conditions which render objective knowledge possible, and the particular or contingent material which, under these conditions, is worked up into experience. Were the understanding productive, no such opposition would be presented. The universal condition—say, for instance, Causality—would not only determine the general formal rule of the appearance of all phenomena, but would give rise to the particulars which we interpret by means of the general rule. But the understanding has to receive its material from elsewhere. Intuition and understanding are wholly distinct faculties; and, in the complex or concrete fact of knowledge or experience, there is always an opposition, a contrast, between the universal necessary form and the particular contingent material. The matter of experience is contingent; and there clings always, therefore, to our concrete knowledge an element of inexplicability which is indeed the very source of the further reflexion that constitutes the function of reason. The aim of reason, theoretically, is the contemplation of the concrete whole of experience as intelligible throughout. It endeavours to obtain, with respect to the contingent particulars, a determining principle as final in their regard as the categories, for example, are with respect to the form of experience.

On the side of pure knowledge, then, the problem of reason is no doubt to be called in one sense insoluble, for the contingent can never be entirely reduced to intelligibility. The rule of reason is not constitutive but regulative. The principle on which it proceeds, the idea of a universal from which should follow the whole structure and arrangement of

the material of experience, is hypothetical only. We must proceed under it: we have no right to assume that it determines the very character of experience.

But, now, there occurs here a reflexion which Kant did not himself overlook, but to which he hardly gives sufficient prominence. There is, in his view, this sharp decisive contrast between the universal of thought and the contingent material of intuition. We proceed, however, with respect to the concrete whole as though it composed a system in which from its own universal every particular would be completely understood. Do we actually obtain any measure of success in this application of a hypothetical principle? Undoubtedly, is Kant's answer. It is a fact that nature, in its multiplicity, does offer to us an arrangement of the contingent particular which enables the task of reason to be so far accomplished, and which therefore we may describe as an adaptation of nature to the human understanding. Nature, on its formal side, must be adapted to the understanding, for it has its very being only through understanding. On the material side there is no such necessity. The principle of reason is just the hypothesis or assumption that a like adaptation obtains with respect to the material; and, in fact, scientific knowledge of nature is possible only because there is some such adaptation.

That nature does thus afford a certain measure of adaptation to the ends of reason is, Kant insists, to be regarded as contingent only. It is impossible for us, on any constitutive principle, to maintain that such must be the relation between nature and understanding. On the other hand, it will be observed that this hypothetical principle of reason might at the same time be described as a hypothesis with respect to the structure of things-in-themselves. It is to the things-

in-themselves, that which lies beyond determined experience, that the contingent material thereof is due. Hypothetically, therefore, we reach one determination of the otherwise unknown and unknowable realm of things-in-themselves. Is it possible that there should be more—and more specific—ways of effecting further determination of the same realm?

Kant points to three such ways, all closely connected with one another, and with the general hypothetical principle of reason already noted.

First, and perhaps least important, is that which arises from consideration of the quite peculiar predicates appearing in so-called Æsthetic Judgments. The peculiarity of these predicates is that they look objective, and yet are in no way expressive of conditions under which objects are known; and they are certainly not immediate qualities of sense. Subjective, then, they must be; but they differ from the ordinary subjective predicate in that the judgments in which they appear always make at least the claim to a kind of objectivity: they claim universal acceptance, and they disclaim any dependence on individual feeling; they are impersonal and universal.

Kant's solution of this is that the predicates rest on, arise from, something which is common in the structure of our human faculty of apprehension, though it does not constitute any function of understanding, without which knowledge would be impossible. In determining more closely the common feature, he recurs to the antithesis between the universal and the contingent particular—I think rather in the concrete form of both. The total act of apprehending involves the combination of these two, the bringing together of a general thought and the intuitive material in which it is realised. This process may come about with various degrees of ease and completeness. The æsthetic predicates, at all events the beautiful and the reverse, are to be explained as

consequences of this greater or less ease and completeness with which the particular and universal are united in the concrete apprehension of the thing.

In the case, then, of the æsthetic predicates, or, more concretely, in regard to the aspect of nature as beautiful, there is exhibited a further correlation or adaptation of the particular to the universal of our understanding: a contingent adaptation, for it is impossible for us either to assume that nature must present this aspect or to assign to the aspect itself a completely objective character. Æsthetic judgments are wholly distinct from judgments of knowledge. Nevertheless, the mere fact that such an adaptation seems to be exhibited in our concrete experience gives us one additional determination, one means of hypothetically depicting the structure of things-in-themselves.

The second and more important indication is furnished, Kant thinks, by the phenomena commonly grouped under the title Design in Nature or Teleology. Dismissing, rightly, what has been called External Teleology—the supposition that completed things in the world of experience exist in order to serve the needs of other completed things—Kant selects as alone significant the facts of organic life, where the end or purpose seems to be internal: the organism becomes intelligible for us as the way in which a purpose or end is realised.

In respect to organisms Kant points out that the purpose or design, which we suppose to be realised there, can only be represented by us in the form of an idea. The mode of realisation, or, in other words, the peculiar mode of existence of an organism, he takes to be wholly inexplicable by mechanical laws. We understand a mechanism by constructing, so to speak, the whole out of its parts. In the organism, on the other hand, whole and parts are equally primary: we can indeed only explain the parts from the

whole. This being so, we find ourselves confronted with a special conflict of views, an antinomy. For, on the one hand, the rule of understanding is absolute: within experience no other than mechanical causes are admissible; while, on the other hand, organisms present a mode of causation which is not mechanical. Organisms indeed have the special feature that they seem to offer to us the characteristic 'purposive,' which is beyond understanding, as a constituent of the actual object. In respect to them, least of all, does the predicate seem to arise from any relatively subjective source.

Kant solves the conflict in his usual fashion, by pointing to the limitation of our knowledge. The principles which we are applying can concern only experience; and while we say, therefore, on the one hand, that no change in nature is to be explained by us except through mechanical causes, and insist rightly, therefore, on rejecting design or purpose as a cause, and explaining everything that happens in an organism by mechanical causes, yet, on the other hand, the limitation of our principle of understanding to phenomena compels us to consider that this contingent arrangement of mechanical causes—contingent because we can bring it under no principle of understanding—carries us beyond the limits of the phenomenal. That we construe it in the way we do, by assuming an idea as the generating cause, is a consequence of the very structure of understanding itself. We can only understand by proceeding from a universal to the particular, from the whole to the parts. But this very limitation forces on us the idea of that higher type of understanding in which the particular is not deduced from the universal but given with it, identified with it.

Thus, to put it briefly, the phenomena of organic life indicate a special form of that adaptation of the particular to our understanding, which we make intelligible only by

representing hypothetically, as the source of the concrete in our experience, a realm of things-in-themselves, which operates in such a way as to adapt concrete nature to the human understanding.

In the third place, there remains always for Kant the most direct mode of finding a determination of the non-phenomenal. On the side of practice the supreme conception of Duty requires as the condition of its possibility the representation of that intelligible system which, from the point of view of understanding, is little more than a negative limit. In the moral subject, therefore, there is found the most complete type of that which organisms somewhat dubiously display—an immanent or internal end or purpose. It is possible in the sphere of practice to determine the final end of human nature, and therewith, inferentially, to reach a determination of the final end of nature as a whole. For, if moral perfection be rightly and necessarily defined as that the attainment of which constitutes the purpose of human life, then it is legitimate to consider that the whole of external nature must have that adaptation to the supreme moral end that is requisite to admit of its attainment, or, at least, of advance towards its attainment. In man regarded as a moral being we have a complete final End, and with respect to him a kind of external teleology is therefore legitimate; and thus a more complete determination of the structure of the non-phenomenal is reached than is possible on the theoretical side.

CHAPTER VI.

FOUR POINTS OF KANTIAN DOCTRINE.

I. *The Thing-in-Itself.*

THE notion of the thing-in-itself presents itself at all the stages of Kant's analysis of knowledge. It is most important, perhaps, so far as application is concerned, in the treatment of reason. It is least definite in the treatment of intuition, though possibly the underlying thought which we may detect there is in the long run the fundamental one. It is most explicitly and at the same time most ambiguously handled in the analysis of understanding, and to that treatment we shall have to pay more special attention.

There runs through the whole the view which perhaps comes most to the surface in the treatment of sense-intuition, according to which the thing-in-itself in its general notion expresses the dependence of the material of our knowledge on something which is not itself a portion of experience. In this general notion of the thing-in-itself there come together several distinct lines of reflexion. On the one hand there must be traced the influence of the purely mechanical mode of representing the way in which sense-impressions are given to the mind. To call them impressions, indeed, implies with Kant, as with Locke, that metaphorical explanation of them

which consists in referring them to causes of a different order from themselves, and therefore incognisable.

Again, the general notion of the thing-in-itself sums up in its own way the reflexion on knowledge which is common to Kant and to the Cartesian school: that it is subjective, and therefore indicative of something not itself. What we apprehend is in a double sense phenomenal: negatively, as not being the absolute reality; more positively, as indicating that reality.

Thirdly, the general notion of the thing-in-itself is a way of expressing a particular reflexion on the limitation of knowledge. What we know presents always an aspect of contingency; that is, has something in it which escapes the general relations through which intelligibility as such is reached. In this sense the thing-in-itself becomes practically identical in notion, as in Kant's treatment of reason, with the unconditioned; for that which lies beyond the scope of the discursive work of understanding seems, in one aspect at least, to be just that completed whole towards which our knowledge tends without the possibility of reaching it. Experience is not given in its entirety. Our knowledge extends only to the interconnexion of the parts of that which we may conjecture to be a whole.

It has probably occurred to every reader of the first Critique to ask the question, How does the conception notion or idea of the thing-in-itself arise? What lies at the root of those various lines of reflexion which seem all to converge towards the conception of the thing-in-itself? Taken as we have expressed them, these lines of reflexion are not ultimate in character; they depend on something else. The first of them, for example, is obviously the extension by analogy of what seems familiar in our ordinary experience. That sensations arise by a stimulation from without is, I take it, a fact of ordinary daily experience.

That we must wait in our ordinary experience for such stimulations in order to have sensations, that sensations are thus given, not produced,—that, again, I take to be a fact beyond dispute. Yet reflexion readily convinces us that, in the fact so described, we never go beyond the limits of what lies in experience. The real conditions to which we appeal as giving rise to the stimulations from which sensations follow are not the unknown and unknowable things-in-themselves, but the determined and, so far at least, known objects of ordinary perception. The very expression we use, that such real conditions are outside of us, we do not interpret in any non-empirical way; we mean that they are in a definite space-relation to the organs of the body. Nor is our view in this respect in any way affected by the consideration which we may add, that we are unable analytically to deduce, from the notion of the mechanical processes of action and stimulation, the unique quality of the consequent sensation; for obviously nothing is gained in that respect by transferring the explanation from empirical facts to the non-empirical.

The only ground on which it could be contended that this simple, and, as it appears, empirical way of explaining the given produced character of sense-intuitions is an untenable explanation, is that in framing it we illegitimately confer upon the so-called outside things a reality that does not belong to them. We may hold, for example, that what in this explanation are called the real conditions outside of us are in their own nature no more than just such given produced dependent results—sensations, namely—which therefore we vainly seek to explain by their means. The so-called external things, it may be said, are no more than complexes, syntheses, of sensation; and it is absurd to seek for explanation of the way in which sensations are produced by appealing to sensations themselves. Such is

the point of view of Subjective Idealism. By pressing such a point of view Berkeley, for example, thought he was in a position effectually and finally to overcome all that he called Materialism.

Though Kant never definitely accepts this position of Subjective Idealism, though he argues explicitly against what he takes to be the ground of it,[1] yet, in respect to this problem, it is hardly possible to distinguish his view from that of the Subjective Idealist. It becomes necessary, therefore, to consider to what extent this position of Subjective Idealism has justification. Is it legitimate to identify the two positions: (1) that whatever knowledge we have belongs to mind and is of the nature of mind, and (2) that whatever is known consists in its own nature of those processes which are called by us 'states of mind'? Or is there not here in the attempted identification a confusion of two wholly distinct points of view? Under any circumstances knowledge can never be other than an act or process of mind. In fact, minds are constituted through such acts. But in describing this as knowledge, and in so generalising the proposition that knowledge is an act of mind, we have in view only the content known. When, on the other hand, we insist that knowledge is only an act or process psychical in character, we have in view, not the content known, but the special mode of existence of a subject and of the states which make up his concrete mode of existing. But these are totally distinct. There is nothing in the conception of knowledge which at all implies restriction of the object that may be known thereby to one rather than to many types of concrete existence; while, on the other hand, did we insist on the reflexion that, because knowing is a state of mind, minds and their states are the only objects known, we should find it impossible to explain in what way it

[1] [Kritik, B, Tr. Anal., Refutation of Idealism.]

ever becomes possible for mind to know itself. Subjective Idealism, if we trace its method, begins naturally with the assumption that the finite subject exists and knows itself as existing: but this is an assumption, and itself stands in need of explanation. There is nothing in the notion of psychical states to imply either that they are themselves known, or that as known they constitute the modes of a finite subject. Rather, it is only as a consequence of what is given in consciousness, as a consequence of differences in the contents of consciousness, that there comes about the recognition of finitude on the part of the subject, and therewith the possibility for him of describing reflectively the contents of his consciousness as processes of his own existence.

It is possible that, at the same time, there runs through this theory of Subjective Idealism the representation of knowledge as somehow a distinct entity or existent, which hangs midway between the apprehending subject and that to which reference is made in the content of consciousness. But there are no grounds for thus conferring on a content of consciousness substantive existence. It is the old error which in varied forms comes before us in the so-called 'representative' theories of perception, all of which in the long run make the assumption that perception has a substantive existence intermediate between the perceiving mind and what is perceived. These issue in the theory of Subjective Idealism when the reflexion is made that the perception is its own object and can never get beyond itself.

The contents of consciousness which really constitute our knowledge are not in their own nature characterised either as having substantive existence or as constituting ways in which a finite subject exists.

If, now, we proceed from this point to consider what force is to be accorded to the reflexion contained in our ordinary thought about sensation, that it arises from what is outside,

that it is a mechanical process, the difficulty is enormously reduced. We are in no way referring to the unknown and unknowable. We may be, we certainly are generally, referring to what is imperfectly known: for the external world which is taken as containing the real conditions of the changes in our conscious state that we call sensations, is imperfectly known to us; and we may, in the long run, have to confess that the imperfection is a permanent one. Nor is it necessary to suppose, when we do make such reference to the external real conditions, that we are bound, under penalty of further appeal to the unknown, to be able to see directly how the resulting change should have the qualitative peculiarity of sensation. It is a prejudice to suppose that the ideal of completed knowledge is that in which all difference of quality is to be removed and all consequences are to be seen as analytically deducible from their antecedents.

The deduction of the Categories, as we saw, consisted essentially in pointing to the correlation between identity of self-consciousness and apprehension of determined order in the material of intuition. Without the common reference to a single self-consciousness, intuition by itself, however varied, could give no knowledge; but this common point of reference must be itself apprehended: that is to say, in some manner consciousness of the unity and identity of self is required for and is given in knowledge. Now, the self has no content of its own: it is, so to speak, without multiplicity on its own account. Consciousness of its continued permanent unity is therefore, so Kant's argument runs, possible only in and through the apprehension of what appears to be distinct from it, its correlate—determined order in the material of intuition. It might thus become possible to express the Kantian theory on this point in terms which Kant himself employs in his posthumous work, and to say that knowledge of object is throughout the determination of

self by itself,—a point of view which obviously brings the Kantian doctrine into very close relations with its historical continuation in Fichte, who, after all, in words at least, is as ready as Kant to make allowance for the extraneous foreign non-deducible factor, the initial stimulus and manifold of sense.

The representation or apprehension of order in the manifold is identified by Kant with the conception of object. The object is that which renders necessary and non-arbitrary the combination of the manifold in an intuition; or, expressed more generally, it is that which differentiates the order of perceptions as constituting cognisance of fact from the mere sequence or whirl of subjective representations in my own mind.

As, moreover, the condition which renders necessary this representation of object or order is perfectly general—independent, that is to say, of any qualitative or quantitative mark of the material—Kant seems justified in putting forward the otherwise doubtful conception of what he calls the transcendental object, the object as such; for the term names, properly, no more than the general condition that unity of self becomes possible only in and with apprehension of the objective order.

At the same time, the generality and emptiness of this conception of the transcendental object are connected by Kant with the corresponding generality and freedom from dependence on their material of the specified ways in which such objective order is apprehended. The categories may be defined as general representations of the objective in intuition. They have therefore potentially a sphere of application which seems to extend beyond the limits of intuition. From this consideration, then, Kant draws the explanation offered of the appearance in the sphere of understanding of the distinction between phenomena and things-in-themselves.

The value of that distinction is simply that it indicates the limit to the application of the categories, for they are not actually realised except in sense-intuition as given to us. There is therefore imposed on their use a restriction.

In regard to this view the first point requiring consideration is the distinction drawn between object as the determined order, and representations as, so to speak, free ideas. Undoubtedly, the conception of an object is always connected with the recognition of this difference between two processes of mind, both of which, from one point of view, may be regarded as subjective: that in which there is admittedly the reference to an object that is not self, and that in which, though such reference is not absent, it is accompanied by the consciousness of merely subjective existence.

The point to be considered is whether the distinction in this fashion can legitimately be explained in the way in which Kant seems to explain it, as a consequence of self-apperception, self-consciousness,—as the result of that single unique act of mind which Kant calls understanding or thought. It is impossible to free his exposition from the appearance, at least, of ascribing the establishment of the distinction to a unique act, wholly different from sense-intuition, an act, as he calls it himself, of spontaneity. Now, we may be convinced that what are ordinarily called operations of thinking are always concerned with the distinction here referred to, that somehow thought arises only in conjunction with the establishment of that distinction. And yet we may hesitate about deducing the distinction from the operation of thought; we may even conjecture that any such explanation is but an example of a fallacy commoner in speculative thinking than elsewhere — the ὕστερον πρότερον. For if we ask, In what way is the thought of object connected with this distinction between the deter-

mined order of inner or outer perception and the free play, the arbitrary sequence, of our representations? we shall find it necessary, I think, to insist that it is as a consequence of perfectly natural circumstances in the growth of consciousness itself that this latter distinction becomes established, and that it is from the specific individual form of that distinction that we generalise the notion of object. We do not establish the distinction by applying to the otherwise indeterminate mass of intuition the general conception of the object; but we arrive at this general conception as a consequence of the establishment of the distinction itself.

But this is saying, in other words, that we cannot with Kant accept the objective unity of self-consciousness, the representation of the unity of self, its continued identity in the manifold of experience, as a primary datum. No one would hesitate to say that such unity of consciousness is involved in all our thinking treatment of experience, that it is impossible to represent experience as a systematic whole except by representing at the same time the objective unity of self-consciousness. But there is no ground for carrying this systematic representation of a connected world of experience back to the primitive stage of consciousness, no ground for assuming that we start with such a representation. There is every ground, on the other hand, for maintaining that the opposition between subject and object, which, when we take it in its generalised form, seems an absolute and primitive datum, emerges gradually through the much more concrete oppositions between self and not-self, and, in the long run, from the opposition between the least determinate of such correlations, that which we indicate by the terms 'feeling' and 'space-occupying.'

Turn now to the consideration of the bearing of Kant's view of the transcendental object on the meaning of the thing-in-itself. In his view, the phenomenal things are

taken to be complexes of sense-intuition determined in specific ways by the act of thought. In the long run the real object to which we attach intuition is never more than the necessary representation of order requisite as the counterpart of self-consciousness. Consequently any attempt either to extend the range of application of this thought beyond intuition, or—as such 'beyond' has no significance—to regard the determined complexes of intuition as having an existence other than that which they possess in consciousness, is illegitimate, is treating them as things-in-themselves.

This point of view, again, is one which only by extraordinary subtlety of argument can be discriminated from Subjective Idealism. There are, indeed, only two ways in which it can be discriminated from this theory—a theory which Kant undoubtedly did not desire to accept. The one line is that followed by Fichte, and, in part at least, by the later German Idealist philosophy. The world of experience is held to be no more than the orderly construction due to the activity of self-consciousness; but such self-consciousness is in no sense individual. The products of its constructive activity are therefore in no way to be regarded as dependent on the numerical individuality of the concrete subject. The Ego in knowledge is never the finite individual Ego, but the Infinite Absolute of Self-consciousness, as Fichte put it.

Another method, and on the whole the method followed by Kant, consists in pointing to the difference between external and internal intuition, regarding these as certainly still phenomena, and therefore only complexes of representations, but as possessing an ultimate and irreducible difference. In the case of both, the distinction between phenomena or appearance and thing-in-itself or absolute reality may be insisted on; and, if we liked, we might even hazard the conjecture that, despite their irreducible phenomenal differ-

ence, in themselves they might be identical—a conjecture which Kant will not dismiss as impossible, but which certainly from his point of view is meaningless.

Although it is true that this second mode of evading the objection is not really successful (for it still leaves both types of objects, so-called inner and so-called outer, in the position of complexes of representations in consciousness), it is worth following out to see whether it does not lend additional force to the argument already pressed against the deduction of the categories, that in fact the highly abstract distinction of Subject and Object is not a primitive datum but a derivative. Does Kant consistently adhere to what is required in this attempt to overcome Subjective Idealism—the representation of a twofold order of objects, outer and inner? If we find him in the long run admitting that the only objects are the outer, we shall undoubtedly regard such an admission as confirmation of the criticism already passed.

II. *The Doctrine of Inner Sense.*

The doctrine of the Inner Sense connects itself with Kant's whole conception of psychology. In a general way his view of psychology proceeds on the basis of an exact correspondence between Physics as the doctrine of matter, of what is apprehended through the outer senses, and Psychology as the doctrine of the mind, of that which is apprehended through the inner sense. The correspondence, he seems even to have thought, might be worked out in detail. Knowledge of the corporeal requires (1) affection of the outer sense, (2) reception of such affections in a common form, that of space, and (3) combination of such material through understanding, determination of it by the categories. So psychology presupposes (1) some affection or given material, which may therefore be represented as given to an inner sense, (2)

reception of that material in a common form, that of time, and (3) determination of such given material by the categories.

It was in reference to the third of these conditions that Kant's attention seems first to have been directed to the peculiarity, almost the ambiguity, of this supposed science of the material of the inner sense; for, in working out his theory of the operations of the understanding, it became apparent to him that understanding only obtained actual exercise in reference to intuitions in space. I will not say that his ground for this is quite satisfactory. It presented itself in connexion with the important principles of the pure function of understanding—substance, cause, and reciprocal action. And there the special ground for restriction to space-intuition was taken to be the permanence which otherwise was not to be furnished by material that was only in time. The apprehension of time-relations as objective required, it had then appeared, the presence of the contrasted factor—a space-intuition. There follows accordingly the important and rather formidable conclusion, that no scientific knowledge, no knowledge, therefore, that has objective validity, is possible in respect to the material of the inner sense.

But, now, Kant's attention might also have been drawn to a difficulty which connects itself with the element of time. For the time-form is not exclusively appropriated to one section of our experience. It is Kant's repeated assertion that all our representations are in one way materials of the inner sense. Time is a universal form, and, as we saw, the whole doctrine of Schematism, and therewith of the principles of Judgment, is dependent on this universality of time. But, if so, how do the contents of inner sense, which constitute mind or the inner life, acquire for us the character which distinguishes them from the contents (also belonging to the inner sense) which belong to the objective world of space-

related things? It is of little service to appeal, as Kant seems to do, to the distinction between outer and inner sense as primordial. There is evidently some confusion between the aspect of a content as belonging to the outer sense and the aspect of the same content as belonging to the inner sense. These are not to be identified; and yet Kant's theory allows us in no way to define the difference between them.

Again, there is something altogether impracticable in Kant's way of representing the given character of the materials of inner sense. Given they are, no doubt, in that we do not produce them; but is it certain that they are, or is it necessary to assume that they are, given as impressions upon a sense? Is anything gained by duplicating, as we thus do, the world of inner objects? Kant seems to have thought that only in this way could he secure the important point in his general theory that we only know ourselves phenomenally, and that of self in its own nature we have no knowledge. But it is the worst form in which the conception of the thing-in-itself could be presented.

The doctrine of the inner sense, then, constitutes an altogether imperfect portion of Kant's analysis; and its very imperfections show that at the root of that analysis there must be some fundamental error. One may readily admit the substance of what Kant insists upon, that the empirical mental life is not to be identified with the pure unity of consciousness. But we may refuse to give a kind of hypothetical substantive existence to either of them, may refuse to describe the empirical life of mind as self in its phenomenal aspect, and also refuse, with Kant, indeed, in his more cautious moments, to describe the fundamental condition of all experience in a substantive fashion as an Ego or Self.

It will be noted that Kant's refusal of a scientific character to psychology depends on his view that in respect to mind, the inner life, no *a priori* knowledge is possible. We can determine no general characteristics of the contents of the inner sense except, as Kant allows, what is the mere repetition of its formal constituent: that the contents are all in time, forming a continuous stream of one dimension.

No *a priori* principles, then, in reference to mind; but *a priori* principles in reference to the world of the extended: a distinction which obviously renders sharper the opposition in Kant between the *a priori* and the *a posteriori*, between the contribution of understanding and that of sense. These, he consistently maintains, are wholly distinct in kind: their sources are different, their natures are different; and, as we saw, he is most resolute in refusing to admit Leibniz's proposed compromise, whereby sense and understanding were viewed as differing in degree only, not in kind.

Now, in truth, Kant grievously endangers his own doctrine by insisting on the absence of *a priori* elements from our apprehension of the mental life; for it follows from that, if taken rigorously, that according to Kant sense and understanding are not so much sources which unite in producing knowledge, as, severally, sources of distinct kinds of apprehension. If we admit at all that, in respect to inner sense, there is some kind of apprehension without the work of understanding, then it has been acknowledged that sense is *per se* adequate to furnish a kind of apprehension.

It has already been pointed out that Kant in a somewhat similar way endangers, or at least obscures, his doctrine by separating what he called synthetical judgments *a priori* from synthetical judgments *a posteriori*. The latter were thought to have sufficient justification for the synthesis they involved in the particular experience appealed to; but, if the particular experience means that

which contains only the element of sense, then it affords no basis for a synthesis. Synthesis is always and only the work of understanding—that is Kant's cardinal doctrine. A judgment, even if conditioned by a sense-intuition, has always in it the objective connexion which implies the presence and operation of understanding.[1] Accordingly, the distinction between synthetical *a priori* and synthetical *a posteriori* comes in the long run to mean for Kant the operation of understanding conditioned by and turning upon (1) the formal and constant elements of sense, (2) its material and variable elements; and, indeed, even here it requires to be borne in mind that the formal and constant elements are present in both cases. In the first case, however, our judgment concerns them only, and has, therefore, a universality to which the other can lay no claim.

III. *The Meaning of* 'A priori.'

A priori has generally in its significance a reference to time; and there is more than a slight connexion between any theory of *a priori* elements in knowledge and the doctrine of innate ideas. Kant, fully aware of this, is most anxious to distinguish the psychological from the logical sense of *a priori*. It is, he insists, only as respects validity, that is to say, in the logical sense, that certain elements of experience are to be called *a priori*. All knowledge is in one sense acquired; but there is a sense of 'acquired,' Kant maintains, in which we may speak of original acquisitions, by which undoubtedly Kant desires to have understood the right which certain elements of experience have as being fundamental conditions through which experience is possible, and without which experience is not possible.

[1] Cf. Kritik, Deduction of Categories, § 17 (M, § 13).

But naturally, in discussions regarding the *a priori*, an additional shade of meaning was imported into the term, and one with which Kant's expressions are very much in accordance: that is *a priori* which is furnished by mind itself. In this way there would be explained the fundamental universal character of certain elements of experience, though at the same time it would become increasingly difficult to hold apart the logical and the psychological questions.

This second definition of *a priori* is, however, evidently drawn with total disregard of the actual fact — conscious experience. Even what comes from without, supposing an intelligible meaning can be put upon that phrase, must play its part in consciousness, in experience, as an element thereof: its origin can in no way determine its nature; and, indeed, one may make this proposition quite general, and say that the origin of any special modification of our experience can in no way determine its validity or worth for cognition.

Even if we combine together the two meanings of *a priori*, and say that in experience that which is contributed by mind must obviously come first, we should be entitled to add that not even in this sense of 'original' can any portion of experience claim special validity. In saying this we are, indeed, only following out consistently Kant's own interpretation of the meaning of transcendental conditions of experience. The question of validity, as he points out, is to be determined, not by turning to the chronology of experience, but by asking which of the factors of the complex are the indispensable links by which the whole is held together. But in order to be completely consistent with this, the truly critical method, we must resolutely avoid such expressions as 'coming from mind,' 'contributed by mind,' 'given from without,' and the like; and we must, moreover, face the question, What is the point

of view from whieh the indispensableness of certain links for eognition is to be determined? What kind of experience is it for which certain conditions are absolutely required? In truth this is in other words the question expressed in a rather misleading way, What kind or structure of mind is assumed as the origin of, the eontributor of, these *a priori* elements?

I press this question beeause it seems to me impossible, without finding an answer to it, to bring into any harmony Kant's analysis of understanding and the psychologieal development of eonseiousness. We are entitled and bound to ask, Does the analysis of understanding eompel us to suppose that, given the stimulation of mind from some, it may be, indeterminable quarter, the funetion of understanding is at onee ealled into exereise? If not, and I imagine the answer must be in the negative, why is it that only at some more or less definite stage of the development of experience does the said funetion of understanding eome into operation and make itself evident? Shall we not say —though the expression may be a little paradoxieal—that the determination of experienee by these notions is what constitutes mind? That is, instead of explaining the texture of experience by pointing to a fully organised and completely equipped mind which eomes in, as it were, from without, and arranges the chaos of experienee, we must say that experienee is at first under mueh simpler conditions and laws, and that only when it has reaehed a certain stage of arrangement and eo-ordination, does there become possible in it the eonseious severanee of a single permanent subject from its own states and from an external world quite distinct from it in kind.

If this view be taken, it will be seen that we may still retain the logical sense of *a priori*, and now without any disturbing intrusion of the psyehologieal significance. The

categories of Kant, for example, may really constitute an enumeration of the general features of that experience in which it is possible for mind to be conscious of itself in its own unity and of its difference both from its own transitory states and from the external space-related world. It would not be assumed in any such theory that the understanding constituted experience—a phrase which inevitably suggests the agency of understanding. Rather, paradoxical as it may be, we should have to say that experience constituted the understanding. Neither phrase hits the mark. What is meant is that a development which may, from one point of view, be regarded as having attained its complete end, involves as its condition this general structure of the world of experience which in detail is enumerated in the categories.

The *a priori*, then, might quite legitimately bear the meaning of necessary condition of self-consciousness; and it would be possible for us to proceed to inspect experience with a view to discovering what are those general aspects which are involved in self-consciousness and which, therefore, furnish the common or universal element in all the particular modifications of experience.

IV. *The Antithesis between Mechanism and Freedom.*

In a quite similar way we might turn to self-consciousness, not on the theoretical, but on the practical side, and ask, What conditions are involved in the consciousness which the subject has of himself as, through his own ideas, originating change, whether in the stream of his own consciousness or in the outer world? Some such question as this Kant puts to himself; and the answer he gives furnishes, I think, an additional illustration of the kind of theory which he really entertained. The condition of the possibility of representing

self as an agent Kant defined as Freedom, and therewith connected, in a way not easy to determine, the conception of Duty. The reasons which induced him not merely to select freedom as the condition, but to give to it a meaning which put it beyond experience, are for the most part connected with his imperfect and inconsistent doctrine of the inner sense. If, in accordance with that doctrine, the actual or empirical life of the conscious subject is to be contemplated as only a series of contents of the inner sense, then that inner life with all its varieties is treated as an object, and therefore, if cognised at all, is cognised as forming a part of the general mechanism of the world of objects. Kant does not show himself alive to the consideration that his own doctrine of the impossibility of applying the categories to the inner life casts doubt on this view, that he is, in fact, without justification in describing the phases of the inner life, such as desires, purposes, &c., as parts of a mechanism where natural causation is the only relation. In accordance with this description of the inner life, it is only with the pure self, the Ego, which is not within experience, that freedom can be conjoined; and, having said so, Kant renders it impossible to bring about thenceforth any connexion between freedom and human action. It has, indeed, always been noted that Kant's ethical doctrine attempts a wholly impossible task—that of bringing into some organic union two heterogeneous factors, the pure rational conception of duty and the concrete empirical impulses of the active side of our nature. The barrenness of his ethical doctrine is the natural consequence; but this, in its turn, depends on the more speculative confusion between freedom as connected with the abstract condition of self-consciousness and freedom as nothing but the expression of the peculiar consciousness of a subject who is aware of himself as acting.

To oppose mechanism and freedom in the way in which Kant opposes them is to make still more prominent the rather ambiguous position assigned even in the theory of knowledge to the pure Ego. In the analysis of knowledge the pure Ego presented itself only as a way of expressing the fundamental condition of all conscious experience. It did not there receive, and it seemed hardly to admit of, substantive existence. But, if a type of action, free action, be accepted as necessarily involved in what is taken to be ultimate fact, namely, the unconditioned and quite non-empirical law of duty, then such action seems necessarily to imply as its correlative an agent, to which, therefore, some kind of substantive existence, of independent being, must be allowed.

On the correlative side, that of the thing-in-itself, a somewhat similar result is arrived at; for while, in the analysis of knowledge, the notion of the thing-in-itself, when most carefully determined, appeared as merely problematical and negative, here, when taken in conjunction with the thought of free activity under a non-empirical law, the notion of the thing-in-itself acquires a certain positive significance. It is hard for Kant to define further what is to be understood by this positive significance. He is still resolute in maintaining that by such extension of our thought nothing is gained for knowledge; that is, we still remain unable to represent the non-empirical field of operation of the pure Ego, with its law of duty, in terms of object.

But, nevertheless, some kind of representation which goes beyond the contents of the empirical—which is not even the representation of a mode of arrangement of the empirical, but points to the ground of any such arrangement—is rendered necessary and legitimate. The supersensible, that which transcends the empirical, must therefore be thought in such a fashion as to give the needed complement to the notion of the pure Ego with its law of duty.

Such a final representation of the ground of existence can never justify itself before the bar of speculative reason. It neither constitutes part of our possible knowledge, nor is it even necessary as a regulative principle for laying out and systematising the contents of our knowledge. At the same time, it does not run counter to any speculative ideal. It might even be held to be only a more concrete form of the regulative principle under which we proceed in systematising our empirical knowledge. That principle, as we saw, was, briefly, the adaptation of the concrete of empirical knowledge to the unifying function of the human understanding.

This very general conception of the intelligibility of nature might no doubt, under pressure, be made to yield the more specific form of idea, that of nature as the manifestation or expression of a mind. But it is only when there is added to the representation, which merely speculative reason sketches out, the further concrete material of the practical reason, that, in Kant's view, it becomes necessary to represent the ultimate ground of nature, as a whole and in its arrangement, after the fashion of an understanding or mind.

In what relation does this final conception stand to the thought of the thing-in-itself? In some respects, it is easy to see, the final conception comes very close to what is familiar in philosophy as Berkeley's theological Idealism. According to Berkeley the order of nature is just the regular systematic way in which the divine power impresses or affects finite minds. Such impressions or affections are sense-intuitions; and thus, in Berkeley's scheme, there is something resembling the Kantian arrangement of the pure Ego and the thing-in-itself with the world of nature suspended between them as a product of their interaction. Nor does it make much difference, though Kant thought it did, that on the one view the Ego should be represented

as somehow imposing upon the given affections certain forms of its own, whereas in the other these forms were in no way distinguished from the given material. Kant was ready to insist that his view of space differed profoundly from that of Berkeley, for according to him space was objective, while according to Berkeley it was subjective merely. One would allow that, as regards the possibility of explaining and defending the peculiar features of mathematical knowledge, the Kantian view may have a superiority, at least in way of statement, over that of Berkeley. But in respect to the problem we are here considering, —the nature of the representation given of what each called the real world of nature—there seems to be no difference of any moment. From this point of view it is that we find Kant defining the real object as a combination of sense-presentations in the forms of space and time, and determined by one or other of the categories. The objectivity which he is ready to claim for his representation of external nature is one which concerns only the universality and necessity of its form. The whole still appears, as in the corresponding view of Berkeley, to be a mode in which the subject is somehow affected.

In truth Kant never succeeds satisfactorily in freeing his doctrine from the implications of Subjective Idealism, and throughout all his latest work there is to be traced an endeavour, which is very unsuccessful, to clear up the ambiguous relation between the represented object, which is only a combination of sense-presentation and thought, and the empirical thing, which is the real agent operating on the senses and giving rise to the material of sense-intuition. Such empirical things he desires at the same time to distinguish wholly from the thing-in-itself.

PART IV.

POST-KANTIAN IDEALISM.

CHAPTER I.

FICHTE.[1]

PUTTING it in quite general terms, the keynote of that line of development from Kant to which I shall give the comprehensive title Idealism, is determination to remove the contrast which, in Kant's treatment, is glaringly apparent between the parts of his system. Naturally and inevitably there must result from such a removal a different interpretation of the ultimate metaphysical ideas, a difference of interpretation which, expressed most briefly, is the translation of them from subjective terms into objective. They are no longer regarded as valid solely within the sphere of finite thinking, as prescripts or rules which regulate finite thinking. They have a significance attached to them as indicat-

[1] [Born 1762, died 1814; published Kritik aller Offenbarung, 1792; Ueber den Begriff der Wissenschaftslehre, and Grundlage der gesammten Wissenschaftslehre, 1794; Grundlage des Naturrechts, 1796; Erste und zweite Einleitung in die Wissenschaftslehre, and Versuch einer neuen Darstellung der Wissenschaftslehre (in the Phil. Journal), 1797; System der Sittenlehre, 1798. See the author's Fichte (in Blackwood's Philosophical Classics), 1881.]

ing fundamental essential features in the whole structure of reality, as being therefore pre-eminently objective in their nature. It is equally natural that the first steps in the development of this idealist view should have been determined by perception of the heterogeneous character of the parts in Kant's system of reason. As we have seen, not only in its totality, but at each of its stages, the Kantian exposition of reason introduces this element of contrast, of heterogeneity. Thus in sense-perception the material, the concrete detail, is a given factor which is therefore in a way alien to the forms of space and time with which it is clothed on becoming possible matter of apprehension for the thinking mind. Inevitably there must be suggested by such a contrast the contingency of the arrangement by which the combination comes about. The combination may be necessary from the point of view of the perceiving subject; but such necessity is in one sense subjective only; and Kant's doctrine, as we have seen more than once, proceeds as though this contingency of combination compelled and justified the empty conception of things—nay, even, of things of sense—as existing in some other way than in the combination necessary for our apprehension.

Again, in the sphere of understanding, the notions find application to the formed material of sense-intuition, and have meaning only as connecting together what is in space and time. But, in the first place, the space and time characteristics are therefore given; they are alien to the notions; and, indeed, the deductions Kant draws from his analysis of understanding depend mainly on the recognition of this contrast between the two factors. In the second place, the fundamental all-determining fact in understanding—the unity of self-consciousness—is realised only by being brought into combination with given material which is in no way one with it in nature and origin. Sense and understanding have

separate roots, separate functions, and, as Kant occasionally says, that they come together at all is contingent.

In the sphere of reason, finally, the concrete, definitely arranged, systematised matter of knowledge is again presented for the further reflexion which seeks to discover in it a unity that is not contained in its own nature; and here, most obviously of all, the feature of contingency, adaptation, comes into the foreground. It is not a necessity of reason that the whole field of concrete knowledge should have that systematic structure which, from the point of view of reason, the mind demands for its own satisfaction.

It could not but appear, when these oppositions were taken into consideration, that the Kantian system was at all events lacking in unity of conception; and that if, as seemed there to be supposed, the central fact of all experience was the unity of the thinking subject, it must be possible to connect that unity more intimately with the details of the experience in which it is realised. Such an effort towards unifying the Kantian doctrine, reducing to an organic whole what in it is more of an aggregate or collection, is the keynote of the first of the Idealist philosophies—that of Fichte.[1]

No one shows more constantly and more clearly than does Fichte insight into the exact nature of the contrast or opposition which runs through the Kantian doctrine, and which deprives it to a large extent of its systematic character. Doubtless we must start at first, in dealing with these idealist systems, with a somewhat vague conception of what it is they demanded as the systematic unity of philosophy. In general terms, one might say that the demand implied that the whole structure of experience should be exhibited as flowing necessarily from some fundamental principle; but it is evident that this general description may be interpreted

[1] See Wallace, Prolegomena to the Study of Hegel's Philosophy (1894), p. 124 ff.

in a great variety of ways. The value of an historical survey of the forms of the idealist doctrine is that it enables us to understand more in detail what interpretations were given of this derivation of the whole from a single principle. In the case of Fichte, however difficult it may be to follow his interpretation in detail, there is little difficulty in understanding its general meaning. The central fact in experience, as it appeared to Fichte, was exactly what Kant called the unity of consciousness. Experience is only for the thinking subject. If, therefore, experience be not an incomprehensible aggregate, if it be really a connected whole, as we have the right to assume on the very ground that it is the experience of a thinking subject, then it must be possible to show that its interconnexions, its matter as well as its form, are in an essential and not in a contingent or accidental relation to the unity of self-consciousness. If for the moment we call that unity 'thought,' Fichte's position is that, since admittedly experience is only for thought, the method by which the systematic character of experience is to be made plain is to follow out what is implied in the existence of thought, to develop, as it were, in due order the contents of this initial, simple, fundamental fact—thought, as the basis of experience.

The method by which Fichte proposed to elaborate the implications of self-consciousness has at first something artificial in its aspect. He connects the simplest, the ultimate, form of the principle of self-consciousness with the familiar logical law of identity. 'A is A' is a pre-condition of all empirical knowledge. Nothing whatever can be known except in the light of this abstract logical law; but the logical law itself depends on, and must depend on, the unity of self-consciousness. The axiom that A is A is possible only for a consciousness which, as Fichte says, posits or affirms itself.[1]

[1] [Grundlage der ges. Wiss., pt. i. § 1; Werke, i. 93-4.]

This simple self-position, self-affirmation, is the fundamental act in consciousness, an act, as Fichte desires to emphasise, because in no way a product, or derived from anything else, —a free act, therefore.

So far, indeed, but little has been reached beyond a more formal expression of the fact of self-consciousness. The all-important second step which Fichte takes, and desires indeed to have understood as necessary, he was never able to connect quite satisfactorily with the first. He approaches it first by the somewhat artificial method he had adopted in reaching the primitive affirmation or position of the self, using as stepping-stone the logical law of thought that 'Not-A is not A,' and deriving from this the highly significant result that there must be possible within self-consciousness the distinction of self from not-self—a purely abstract distinction, not implying what is called the distinction of subject and object, but merely, I think, the recognition of the element of distinction or difference. Such element of distinction or difference, Fichte claims, must, in the first instance, have expression not in any particular form, but in the quite general form — the only one possible for the self — a distinction within itself, the distinction of self and not-self.[1] This distinction of self from not-self is at the same time a primitive and fundamental act; it is not forced upon self; the very negation, therefore, is the affirmation by self; the negation of self is an act of the self, and therefore is more truly to be expressed as a limitation of self, and as involving, therefore, within self-consciousness, the relation of self and not-self. Obviously, what Fichte is labouring here to express in abstract formulæ is the proposition that difference or distinction is an absolute condition of self-consciousness. The artificiality of his method, the lack of real coherence of the steps taken, seems to me mainly due to the fact that he

[1] [Gr. d. ges. Wiss., i. § 2; Werke, i. 104.]

desires to represent the necessity of this condition as something springing from self-consciousness, and that he is forced, therefore, to express himself as though the pure identity of self were prior to, and the pre-condition of, the element of distinction. In truth, whether Fichte is employing only the perfectly abstract terms self and not-self, or the more concrete terms finite subject and object, it becomes equally apparent that his method does not enable him to deduce the element of distinction or opposition from that of pure position or affirmation; and, throughout his whole doctrine, the ground of the element of opposition is the ever-recurring problem. The subject must limit itself, and that by its own act. We may think we understand the first part of this sentence; the second part it is impossible to understand, and all Fichte's ingenuity does not make it intelligible.

Fichte accepts as his fundamental proposition what had appeared in a more secondary way in the Kantian doctrine that all experience is for the self-conscious subject. Whatsoever enters into our experience is so far capable of being regarded as a condition of the possibility of self-consciousness. In the Kantian view this fundamental conception had been simply put in relation to a conception of the way in which experience reaches us; and no attempt had been made to work these two conceptions into a consistent harmonious whole. In general, it is the note of Fichte's work to attain in respect to experience the completeness and harmony that can follow only from the systematic development of one fundamental principle. Such principle we possess in self-consciousness or thought, in relation to which all experience is determined. Consequently the method of philosophy is to proceed by following out from its simplest element the conditions requisite in order to render self-consciousness complete.

It is here taken for granted that the completeness, the unity, of self-consciousness, which must needs be represented as a systematic complex whole, is determinable from the outset. Kant had left in considerable obscurity the grounds for claiming that, in the Ideas of reason, there were presented or represented in concrete fashion the demands which unity of reason makes. Fichte carries a step further what is at least implied in that Kantian view, and takes unity of self-consciousness to be a whole which we can gradually see developing as we follow experience from its simplest stage onwards. In such development of self-consciousness, moreover—and in this Fichte deviates most widely from Kant's procedure—each step must be determined from within. No foreign factor can play a part in the development of thought itself. This is the tremendous assumption of all speculative Idealism; and the fundamental position that experience is only for a self-conscious subject seems to Fichte to put it beyond the reach of argument.

Accordingly, the method to be followed is to be expressed in one way as descriptive. It is a description of the way in which self-consciousness is evolved. In that self-evolution, again, there is manifested what may fairly be called a general plan of development, a plan which is sufficiently illustrated in the first, the rudimentary, the most elementary stage of the development itself. There, as we saw, the fundamental factors are (1) the position of self, (2) the correlative negation of the not-self, and (3) the correlation of these two, a correlation which is expressible indifferently through the notions of limit or of mutual determination.[1] All thinking, the whole development of self-consciousness, will be found to follow the same formal plan. Each complete stage exhibits the threefold arrangement of Thesis, Antithesis, and Synthesis.

[1] [Gr. d. ges. Wiss., i. § 3; Werke, i. 108.]

Without following in detail the development from the stage reached in the mutual determination of self and not-self, noting merely that at this point Fichte finds the means for separating theoretical cognition from practice or action, I proceed to consider what is involved in the assumption that here, in the content of experience, we have only the self-evolution of the Ego or thought. Obviously the first criticism which Fichte had to expect, and which he encountered, was that apparently the not-self, both in general character and in detail, was thus made to appear as the product of some activity on the part of the Ego. The Non-Ego is represented as merely the inevitable condition of limitation whereby, obscurely enough it must be said, the position of the Ego by itself acquires definiteness. The Non-Ego, therefore, to some extent appears as the product of the Ego.[1]

In answering this criticism Fichte proceeds, first, by drawing a distinction between speculation and concrete fact, or 'life,' as he calls it.[2] The Ego is not to be conceived of as a productive agent calling into existence concrete fact. What we describe lies altogether within the consciousness of the Ego; it is speculation only. But, in the second place, Fichte insists that no misconception of his view could be more entire than that which identifies the Ego with the individual person. The descriptive account of the evolution of thought concerns only what is of universal significance. The individuality of the person is a highly concrete derivative product, appearing in due place in the self-evolution of the Ego or thought.[3] From the outset, then, Fichte endeavours to keep clear, and distinct from one another, the Absolute Ego and the individual or personal Self. It cannot be said, however, that his method adapts itself to any other than such series of stages of develop-

[1] [Cf. Gr. d. ges. Wiss., i. § 3; Werke, i. 107, 110, &c.] Fichte, p. 122.]

[2] [Werke, v. 343; cf. the author's

[3] [Werke, ii. 382; cf. the author's Fichte, p. 149.]

ment as we can conceive of in the form of the individual Ego; and, evidently, it is no easy matter to determine what possible notion will include within its bounds the Absolute Ego and the derivative therefrom, the finite personal Self.

There is ever recurring, in a modern fashion, the difficulty which besets Spinoza's doctrine,—that of reconciling the two possible conceptions of the Absolute: that in which it is the mere blank abstract presupposition, and that in which it is the infinite concrete fulness of existence. It may be conceivable—though I do not think it is—that development of the personal finite Ego from the Absolute Ego should accommodate itself to the latter of these conceptions; it is hardly possible that it can do so to the former of them.

In the third place, Fichte will go the length of maintaining that, in so far as mere theoretical cognition is concerned, there is no escape from the position of pure Idealism, according to which the Not-Self is simply a modification, self-produced, of the thinking subject. So far as theoretical cognition is concerned, the Non-Ego is nothing but the limiting condition required for self-consciousness, and therefore forming part of the inner life of self-consciousness. It is only in so far as the Ego involves not merely theoretical cognition but action, in so far as the Ego is practical, that the Non-Ego acquires a higher form of reality and the finitude of the individual self becomes apparent.[1] Putting this popularly, one may say, if we could conceive of a consciousness which was nothing but theoretical, it would be impossible for there to appear in the experience of that subject the recognition of his own finitude, of the relative independence respecting himself of that variegated content which is the condition of his consciousness and which we call in the abstract the Non-Ego. That characteristic which most of all gives independence to the Non-Ego—that it is the common object for any number of self-conscious

[1] [Gr. d. ges. Wiss., iii.; cf. Werke, i. 261-2, 263-4, 283.]

subjects—presents itself in the experience of the Ego only in and through his recognition of the existence of other subjects than himself; and such recognition is mediated through action, not through purely theoretical cognition. Another self, were the Ego only theoretical cognition, would be for him merely one part of his own experience. It is only when there is added to the representation of the other Ego the idea of him as active, as determining the Non-Ego, that he becomes more than one part of the content of the Ego's cognition.

Only in action then, only so far as active, does the Ego become finite, and only through the representation of other Egos as active does the representation of the Non-Ego acquire practical reality. The world, as we call it, external nature, is for cognition merely the necessary positive limit for self-consciousness; but, from the point of view of activity, it is the necessary sphere within which action can be carried out.

Fichte thus adopts, with doubtless an important modification, that portion of Kant's work in which the practical reason had been accorded a certain superiority over the theoretical; and he thinks it possible to derive, from a consideration of what is required in order to allow scope to action, the fundamental features of the world of nature. His attempt, it must be said, is not very successful. It is all the more unsuccessful because he tends throughout to conceive of action as the realisation of the moral idea.

Even with these explanations and defences, Fichte found it difficult to turn the edge of the argument directed against the apparent identification of the finite self, or consciousness as exhibited in us, with the Absolute Ego or reality as such. At no time did he depart from his fundamental position that the Absolute is self-consciousness, thought, reason; but, in his later works, it must be noted that he more and more tends to

acknowledge a deep, almost impassable, division between the finite self and the Absolute. The Absolute manifests itself to the finite Ego; and the forms in which the finite Ego represents it are never wholly adequate to its nature.

Such a conclusion is but the repetition in a more concrete form of the initial difficulty involved in the conception of self-consciousness—that, while it is absolute position, absolute simple self-assertion, it can only realise itself by a limit, a negation, a difference, which is not involved in its own simple nature.

CHAPTER II.

SCHELLING.[1]

For us it is sufficient to recognise three stages in Schelling's development: the first to be characterised by the term the Philosophy of Nature; the second, the Philosophy of Identity; and the third, the Antithesis of Positive and Negative Philosophy.

With respect to the Philosophy of Nature, Schelling makes an important and significant addition to the general conception of philosophy as unfolded in Fichte's system. In general Schelling occupies the same fundamental position as Fichte; for him, too, experience, the sum-total of reality, is to be regarded, not merely from the point of view of self-consciousness, but as necessarily implicated in self-consciousness. With Fichte, too, he shares the general conception of such principle or method of development as is to be discerned in reality. That principle or method is determined by the nature of self-consciousness or of thought. All progress takes place according to that scheme which is most clearly and perfectly exhibited in thought or self-consciousness.

[1] [Born 1775, died 1854. His writings include: Vom Ich als Princip der Philosophie, 1795; Ideen zu einer Philosophie der Natur, 1797; Erster Entwurf eines Systems der Naturphilosophie, 1799; System des transscendentalen Idealismus, 1800; Bruno, oder über das natürliche und göttliche Princip der Dinge, 1802; Ueber das Wesen der menschlichen Freiheit, 1809; Vorlesungen über die Philosophie der Mythologie und Religion (in collected works).]

But, in opposition to Fichte, Schelling is led to emphasise the position of nature, and therewith, too, of spirit, in this total development. In Fichte's system nature had appeared merely as the necessary limitation whereby the activity of spirit realises itself. Such a view seemed to Schelling to do inadequate justice to what, in familiar terms, we may call the concreteness of nature. Nature, certainly, is to be conceived of as the manifestation of thought; but it has, in its own structure and in its fundamental features, a character which is inadequately represented when the effort is made, as by Fichte, to deduce that character from the needs of spirit, mind, the self-conscious subject. Inevitably, in such a derivation, the finite Ego is made the starting-point; and Fichte had to contemplate nature as determined in its features by what is necessary for the practical moral activity of the finite subject. Such an abstract representation has not only its internal difficulties—for the derivation is really absurd—but it overlooks the genuine independence of nature, its universal character; and it makes quite inexplicable the correlative conceptions of organic connexion and æsthetic contemplation, to which even Kant had given a place in his system.

The new representation which Schelling elaborates from this changed point of view assigns to nature and to spirit equally independent though connected positions in the sum-total of reality. Both in nature and in spirit the principle of development is essentially thought: but in the one case, in nature, it is thought struggling towards, and finally reaching, consciousness; in spirit there is the advance from consciousness to the highest reach of self-conscious reflexion. Philosophy of nature and philosophy of mind or Transcendental Philosophy are therefore at once parallel and complementary; and they exhibit analogies both in the mass and in detail. Nature, for example, exhibits the gradual

development of what may be called slumbering thought, natural force, in three great modifications, in each of which is represented the fundamental antithesis required for all activity: (1) mechanism, where the antithesis is that between the attractive and repulsive forces of inorganic matter, (2) light, with its subordinate involved processes of magnetism, electricity, and chemical force, wherein the antithesis takes the specific form called generally polarity, and (3) organic life, where the antithesis is exhibited throughout the threefold fundamental processes of reproduction, irritability, and sensibility.

Transcendental Philosophy exhibits in like manner a broad threefold division, indicating a progressive advance from (1) theoretical consciousness, through (2) practical consciousness, to (3) æsthetic or artistic consciousness. Doctrine of knowledge, doctrine of morality, doctrine of art: these are the three divisions of the philosophy of mind; and the progress is in each of them of the same general type. The advance, as it were, from each stage is effected by the appearance of differences or problems which call for a higher richer more comprehensive mode of consciousness. Thus, for example, theoretical consciousness terminates in that abstract attitude of inner reflexion in which self seems to be simply and absolutely opposed to all concrete content. From this position escape, reconciliation of difficulty, is found in practical activity, in the realisation of self in action or conduct. But practical consciousness, nevertheless, even in its highest development, leaves still unreconciled the subject thinking, conscious of himself, and the sphere within which his activity lies; or, put otherwise, the highest phase of practical consciousness brings sharply before us the opposition between the theoretical and the practical, that opposition which in the Kantian system is formulated in the distinction between the realm of nature and the realm of morality. Fixed, necessary, universal—

these are the predicates so far as theoretical comprehension of fact is concerned; spontaneous, free, individualising—these are the predicates we assign to the practical self. Reconciliation of the opposition—a conception which shall give due recognition both to the universality and fixity of nature as known, and to the spontaneity, freedom, of spirit as realising itself in action—is given in the representation of nature as a kingdom of Ends, and in the attitude of consciousness thereto which finds expression in Art. The artistic view of nature wherein reality is taken as a living whole, the expression throughout of spirit—this for Schelling is the highest reach of thought, the final attitude of speculation.

It was hardly possible so to represent Nature and Spirit, and not to suggest a further question. In both—in nature and in the movements of mind from sense up to the artistic contemplation of nature as a living whole—one principle is expressing itself. Both nature and mind are manifestations of some one principle; and the artistic contemplation which appears as the highest stage has, after all, its limitation. It is the complete expression of this one principle *in the consciousness of the finite subject.* Thus the exposition almost inevitably suggests (1) that the principle is somehow distinct from both nature and spirit, and (2) that it is distinct from, though the ground of, the finite subjects or minds. Nature and spirit, to put it briefly, from their relation to one another, from their difference yet interconnexion, point to a common principle, basis, or ground, which manifests itself in them. The recognition of this principle, and the attempt to name the common substratum, and to exhibit its systematic manifestation in nature and in consciousness,—these constitute the peculiarity of Schelling's second main period of philosophical development. It may be called the philos-

ophy of Identity; for, in fact, Schelling finds it impossible to name his one connecting principle, substratum, or ground, by any more concrete term than the Identical Basis of all Differences. All differences in experience may be said to group themselves within the boundaries of the broad difference between nature and mind. The common ground, then, relatively to this, is describable only as the neutrum, the indifferent substratum, whose one positive character is self-identity.

It was natural, perhaps inevitable, that, having reached this rather crude expression for his new thought, Schelling should have found much resembling it—much assistance, therefore—in the elaboration of his own idea in Spinoza. His writings of this period might fairly be characterised as Spinozistic.

It can hardly be said that he succeeds better than Spinoza in accomplishing the really hopeless task of connecting in any intelligible way the particularised concrete specific character of nature and spirit with the undifferentiated neutrum, the identical ground. Moreover, the pressure of the initial conception of the merely self-identical neutral basis leads Schelling more and more to conceive of the stages of particularity in nature and spirit as different from one another in quantitative fashion only. Each, so to speak, is an expression of such and such an amount, contains such and such a degree of the reality, of the ultimate all-comprehensive neutral reality which lies at the foundation of them. It is to this form of Schelling's speculations that Hegel's well-known and most effective criticisms were directed. The Absolute, the neutral ground, said Hegel, as thus conceived, is just the night in which all cows are black. The method of explaining particularity as, so to speak, a more or less, on the one hand, of nature, and, on the other hand, of mind, resembles, as Hegel maliciously puts it, the

efforts of a painter who has only two colours, green and red, and just applies more or less of either of them.

The criticisms on the character of this Absolute Ground certainly convinced Schelling of the futility of his attempted derivation of the particular, nature and spirit, from that which is itself, or must by us be expressed as being, without definite character. The Absolute, in order to serve as principle of explanation, must have something more than mere self-identity. Some tentative efforts towards a more concrete Absolute Schelling did make: using for his purpose sometimes the Platonic Theory of Ideas, sometimes Giordano Bruno's notion of the Universal Spirit of Nature, but most of all the strange mystical conceptions of Jacob Böhme. From Böhme, in particular, Schelling derived the tendency, observable in his later writings, to distinguish in the Absolute or God two factors: the one, the activity, which is representable by us in terms of knowledge, and is, so to speak, the nature of God as known; the other, a dim obscure indeterminable element, the ground which, in some inexpressible way, both determines the Absolute principle to manifest itself, and enters as a factor into that manifestation.

A rather less mystical expression of this curious thought runs through the latest work of Schelling—his Lectures on the Philosophy of Mythology and Revelation—wherein he develops the difference between a positive and a negative philosophy. Reason can only give the form of reality. A speculative system, therefore, even if it succeed in reducing reality to a systematic connected whole, will only give the outer surface, order, arrangement; it never grasps the principle of reality itself. Speculative or rational philosophy is altogether negative. The positive supplement we must look for in obedience to the hint supplied from our own inner experience: for in the life of mind, while our

reason does the constructive work, the real basis is the active striving force, the Will. Intellect is only formal. So in the Absolute, in the principle of things, the positive element is not reducible to terms of thought. It expresses itself in active force; and we must seek its manifestation in the given concrete facts of nature and history.

CHAPTER III.

HEGEL.[1]

THERE is one feature of general interest in the antithesis on which Schelling dwelt in his latest utterances. The positive, that which is not in its whole character expressible in terms of pure thought, is conceived of rather specifically as the historical element in human development. The purely intelligible thread of connexion is supposed to manifest itself with attendant accidental circumstance that renders complete deduction impossible in the successive historical forms of human culture and belief.

In this Schelling was but taking up into his system, and giving definite recognition to, a feature of the earlier philosophy, contemporary with and even antecedent to Kant, which had played all too small a part in the Kantian system. Although Kant devoted some share of his attention to the historical development of humanity—his little tract on the subject is still deserving of careful study—he represents, in respect to it, that attitude which has been definitely described as the Eighteenth Century attitude. No difference is more marked than that between the methods of the Eighteenth Century and those of the Nine-

[1] [Born 1770, died 1831. Published Encyclopädie der philosophischen Wissenschaften, 1817; Phänomenologie des Geistes, 1806; Philosophie des Rechts, 1821; &c.] Wissenschaft der Logik, 1812-16;

teenth in contemplating historical development. With its fondness for clear, distinct, perhaps limited, conceptions, the Eighteenth Century thinking approaches historical development as though it constituted a problem of purely natural research. Such philosophies of history as we have from that point of view are of the constructive order. The problem seemed to them to be solved sufficiently by an analysis of what may be called the motives which hold together the members of a society. Such motives obviously, if discovered by this method of analysis, must bear the character which they possess in the concrete combination subjected to analysis. When, therefore, the results of that analysis are taken as clues by which to interpret the past, we are confronted with what is essentially unhistorical. It is an unmistakable and peculiar feature of Eighteenth Century thinking that it tried to interpret the origin of society, of law, of moral institutions, of religious beliefs, by assuming as the generating causes the same kind of motives as would be discovered by analysis of the complex developed product. And it is also true that there attached to the analysis, perhaps from the same underlying cause, a certain narrowness of conception which intensified the unhistorical character of the interpretation given.

It followed as a consequence that no adequate representation was given of the real dependence of the later forms of human culture on the earlier. The earlier were merely regarded as imperfect results of the same causes as those which produced the more adequate form. Lack of insight, inadequate materials of knowledge,—these were regarded as the circumstances which differentiated the less and the more advanced forms of human culture.

Even within the limits of the Eighteenth Century a more profound view of historical development had begun, and had found expression in the writings of Lessing and Herder.

Herder in particular deserves recognition here, for with some confusion of ideas he—a contemporary of Kant—saw the bearing of the historical method on the problems of the Kantian philosophy, saw that the abstract analytical position which the Kantian system still occupied was, to some extent at least, irreconcilable with historical development.

Without pursuing the consideration of what Herder was able to offer as supplement to the Kantian analysis of knowledge, it may be said that, in general result, his work brought clearly to the front the unfruitful character of the antithesis which, in the Kantian system, is established between mind and its experience. The subject, according to the Kantian view, occupies a quite anomalous position in experience. Generally speaking, then, the tendency which originates in, which we can trace to, the recognition of historical development, is towards a more concrete interpretation of mind.

Perhaps of all the general features distinctive of the form of Idealist thinking in Hegel, the most prominent is this insistence on the concrete historical character of mind. His first important work, that which he himself called his voyage of discovery—the Phenomenology of the Soul—is a sketch in broad outline of the development of mind, from its first least determinate stage in sense-perception, to its return on itself, enriched with all that it has passed through in philosophical reflexion, in the consciousness of itself as identical with the principle of the whole. 'Absolute thinking' is Hegel's name for this final achievement of the spirit; and his more elaborated system is but the explicit statement of what is contained in such 'absolute thinking.'

But though, in the complete system, there appears to be a severance between pure thought, the externalisation of thought in nature, and mind, yet it is to be remembered that for Hegel the concrete fact is always mind or spirit itself—

spirit or mind which only reaches complete consciousness of self, complete recognition of its own place in the whole system, by passing through, absorbing, all the grades of its development.

According to this view, then, the ultimate fact, the principle of all reality, is mind or spirit, the nature of which, laid out in the abstract, is just that system of pure thoughts or notions of which in his categories and Ideas Kant had an imperfect glimpse. But these pure thoughts are no longer placed in a kind of foreign and accidental relation to mind, as seemed to be the case in the Kantian system: they constitute the very substance of mind; they are its essential structure; and their complete statement is nothing but the unfolding in abstract terms of what mind is in itself.

That in this way thoughts, the intelligible essences, as Aristotle would have called them, constitute the true structure of reality is the fundamental position in the Hegelian system, that which makes it the most perfect expression of the idealist position. That we can give what may be called proof or demonstration of such a view is not to be expected. Hegel, like Aristotle—and no two systems in the history of thought are more entirely akin—recognises the ultimate character of this position of thought. There is no higher criterion than thought itself. The truth, so to speak, is its own light; and the truth of things can only be reached and possessed by thought. In fact, for Hegel as for Aristotle, truth and thought are but different expressions for the same; and the assumption that thoughts form a complete system, the abstract expression of reality, is but saying, in other words, that truth is a systematic whole which stands in need of no extraneous support.

There follows at once from this a second characteristic position of Hegel's view. The thoughts which thus form a connected system—the body of abstract truth—have their

own mode of interconnexion. They are not, so to speak, mechanically put together, but form an organism; and the connexion between the several parts is capable of statement only in terms of thought itself. Thus the system of thoughts has its general form determined in that it is an organic whole in which each part is there only for the sake of and by reason of the whole; and, on the other hand, the interconnexion of the parts is peculiar to themselves, is the very essence of thought.

From this mode of presenting the system of abstract thoughts, the essence of reality, as an organic whole, no part of which can claim individuality or absoluteness, there follows a third characteristic of Hegel's philosophy—its peculiar method. The natural tendency of human thinking is undoubtedly to accept those ultimate notions, those categories, as though in each of them absolute truth were reached. Understanding is not so much the name of a faculty as the term which expresses most adequately the procedure of thinking when it accepts thoughts, categories, notions, as each of them absolute, and operates therefore with them as if, in each, complete truth were given. Now Understanding in this procedure finds itself continuously confronted with that which Kant had noted in a few isolated cases—with antinomy, contradiction. Such a fate is inevitable; it is the very result of abstracting, of taking what is only an element in the whole as though it were a complete, rounded off whole. The notions, then, the parts of the ideal whole, may justly be said to be in themselves contradictory, for 'in themselves' means taken in abstraction from their relation to the whole.

Thus, then, if we desire methodically to unfold the whole series of such notions, we have but to follow the method prescribed by their nature, we have but to select the simplest most easily abstracted of all the terms by which spirit

thinks, and develop from it the contradictions which it contains. Only in the system as a whole can we escape the element of contradiction, for only there do we make no abstraction: though it is to be added that, even when we do make the organic system of pure thoughts into a whole, we find ourselves confronted with the same element of contradiction, the same indication of abstraction. Only in the most concrete spirit or mind, which is more than the pure thoughts, which is their realisation in life and knowledge and action, do we finally remove all abstractness and contradiction. This is what Hegel called his Dialectic: his method he called the Dialectical.[1]

The Dialectic appears, in Hegel's conception of it, as characterising not only the whole process of the thinking consideration of things, but as appearing in each of the momenta or stages or separate notions which, taken together, make up the entire systematic idea of reality. The principle of movement, as it were, in the thinking consideration of things or in the notions, is what Hegel calls dialectical. Now, in particular, the dialectical element appears as one aspect of understanding taken in a special sense. The characteristic of understanding, as Hegel views it, is its abstracting tendency. The understanding applies a notion, brings particulars under it, and endeavours to treat the notion or intelligible feature disclosed in it as final, exhaustive, the truth. In so doing it inevitably gives rise to an opposition which is inherent in and springs from the abstraction made. An isolated view pressed to its extreme, taken as absolute, will always, when developed, display its own inadequacy: and this in the striking form of what Hegel calls a transition into its opposite,—by which is to be understood the acknowledgment of equal justification for the notion which is diametrically opposed to that with which we start.

[1] Cf. Encyc., §§ 1-25, 79-83.

The abstract notion, the notion taken in its isolation, is not, so to speak, abolished when such transformation takes place. It exhibits then its true nature as a part of a larger whole, as one element of a richer more profound interpretation of reality; and what is said of it requires equally to be said of its opposite if that be taken in isolation. The truth, so far as it is contained in or lies implicitly in the notion, is reached only when we take together as complementary the two abstractions into which our thought has sundered. Each is necessary to the other; each supplies an element which is required for the more complete notion. Thus the operation of understanding—indispensable, for no advance in thought comes about without it—is subordinate to the higher grasp which brings together what understanding severs, and this higher grasp is what Hegel calls Speculation.

Evidently what has just been said opens up a more profound interpretation of the dialectical movement. For the relation of these imperfect undeveloped notions to the more comprehensive truth which justifies what is of value in each, is but an illustration of the broader more complete relation of part to whole. There is implied throughout, on the one hand, as one would express it, that reality is a systematic whole, of which, therefore, no one part can be held to exist independently: it has being only as an element in the whole to which it belongs. On the other hand it is implied that completed insight into reality, the idea which summarises the thinking consideration of things, is in like manner a systematic whole, of which the several elements are not independent but have significance only as stages in the development towards the completed view. No thinker has ever kept more constantly before him than Hegel, as the standard for the criticism of ideas, the conception of the systematic whole which is implied in all philosophy as an attempt to understand the Real. The Dialectic is but a

consequence or an expression of what is involved in the conception of truth as a systematic whole, of thought as a development the ultimate end of which is the apprehension of truth.

Historically, the content of Hegel's systematic work connects even more closely with Kant than with his immediate predecessors. The opposition which in the Kantian view of knowledge obtains between form and matter, between self-consciousness and the reality with which it seemed but accidentally connected—this Hegel endeavours to remove by regarding both factors as equally necessary to the whole, as equally finding a place in the total development which constitutes the whole. Both on the side of theoretical cognition and in respect to practice, Hegel is to be found assimilating the material of the Kantian system but expressing it anew in terms which remove the accidental or contingent character left by Kant: both knowledge and practice are regarded as stages in the development of complete self-consciousness; for self-consciousness is not in Hegel's hands, as in the Kantian doctrine, a kind of form which is simply imposed on the matter offered to it. Objects of theoretical cognition, nay, even objects in systematised order, and the objective forms of practice, recognised duties, customs, institutions, these are necessary conditions of self-consciousness. The subject only arrives at a consciousness of himself in and through the development of theoretical cognition and practical life.

Thus, then, it is possible for Hegel to proceed methodically, either by laying out the fundamental characteristics of reality, or by stating the gradations whereby, in consciousness, the advance is made from the first imperfect movements of the psychical life to the reflective developed representation of self in its relation to a systematised world of conditions of self-consciousness. From this point of view

we are to understand his repeated declarations that in his philosophy form and matter are identified, that for him logic and metaphysic, the theories of thought and of reality, are one and the same, and his claim that the forms of thought develop by the impulse of their own organic life, and that their development is at the same time the abstract essence of the development of reality.

Before passing to some of the more concrete aspects of Hegel's doctrine, we may note the bearing of his interpretation of dialectic on what has been called the principle of Contradiction. Hegel's opposition between finite and speculative thinking, between understanding and reason, is often expressed in the form of a rejection or limitation of the principle of Contradiction. Yet it is not a rejection; for certainly it was never Hegel's intention to assume that contradictorily opposed propositions were both true. What he desired to maintain, in the rather paradoxical doctrine that contradictories are united in true thinking, is that the complete truth is never expressible in the form which the finite understanding of necessity adopts—that of the proposition or assertion. Any proposition or assertion involves and must involve an abstraction: it takes a portion of reality and expresses some partial feature thereof. Within its own limits such assertion may be true enough; and a contradictory which remains within the same limits is certainly not, within these limits, entitled to be regarded as equally true. But the limitation indicates that neither the proposition, nor its contradictory within such limits, is adequate to the expression of the truth. Whoever, indeed, acknowledges systematic interconnexion, dependence of the part on the whole, development—in which any one stage is but a transition form—is at the same time implicitly accepting Hegel's view that the truth is not given by any proposition which isolates

one part, one aspect, one stage, and gives it an apparent independence.

Evidently Hegel, whatever be the order of exposition in which his thoughts may be presented, is to be understood as making their foundation the concrete representation of reality as a systematic whole embodying, manifesting, expressing a principle—that of Self-Consciousness. In our experience the highest form of reality is our own self-conscious spirit. Only in it are there brought into relation with one another the factors which, when taken in isolation, seem to stand as independent entities and to refuse to enter into combination. Nature and the mere life of mind, for example, seem to stand opposed to one another; nevertheless, in the more concrete whole—the actual existence of a self-conscious mind—these are to be regarded as necessary factors, as complementary elements. The self-conscious mind, if we take but one aspect of it, becomes conscious of itself only in and through its consciousness of a world of objects; nay more, in order to be fully conscious of itself, it must be conscious not only of object in general but of an objective world in which the several parts are connected by general laws. It is an orderly external world that serves as the correlate for that orderly structure of mind on which again, as a foundation, reflective consciousness of self is rested. Thus nature, that which is the external in respect to mind, is no contingent or accidental feature in the structure of reality. Only in conjunction with nature does the life of self-consciousness become possible.

Our reflexion on these conditions of self-consciousness may again be distinguished from the concrete fact, the only true complete reality, namely the life of mind; and, taken in this abstraction, what our reflexion yields us is nothing but the conception idea or abstract representation of what is required in order that self-consciousness shall be possible.

But such self-consciousness is at the same time that in which reality is most completely manifested. The abstract representation, therefore, may likewise be described as the statement of what is the intelligible in reality.

Thus the concrete whole of self-consciousness yields us the three broad divisions of the philosophical or speculative view of reality: the Logic, or statement of the abstract conditions of self-consciousness, the aspects of reality; the Philosophy of Nature, or the statement of the forms of the external in and through which mind becomes possible; and, finally, the Philosophy of Mind or Spirit itself, the statement of the grades through which self-consciousness is reached from the simplest form of psychical activity.

In this statement I have deliberately laid the emphasis on self-consciousness—the concrete fact of the life of a self-conscious subject in his surroundings—and, by implication, have identified this self-consciousness with the human. But that is not entirely Hegel's mode of viewing the ultimate concrete whole. Even though at times he traces the development of self-consciousness in such a way as would make it appear that the speculative idea, the representation of all reality, is exhibited only in the finite self-consciousness, yet it can hardly be doubted that he intended the stress to lie on that which, as he puts it, unites and renders possible the finite intelligences. An infinite intelligence, an infinite spiritual principle, which is manifested in finite minds, though not identical with them—that is the form in which he expresses his view of the ultimate reality.

Quite in accordance with this, causing, as one can see, the same difficulty, rendering possible the same divergence, is the interpretation which he tends to put on the all-important notion Development. From the point of view of reality as the manifestation of the infinite spiritual principle, development must be regarded as the unfolding of

what in some form already has existence, of what Aristotle called 'potential being.' In some way, then, obscure enough to determine, that which in the life of humanity appears as a gradual acquisition is to be thought of as already achieved, already forming an integral part of the completed self-consciousness which is at the heart of reality.

PART V.

SUGGESTIONS TOWARDS A THEORY OF KNOWLEDGE BASED ON THE KANTIAN.

CHAPTER I.

SUBJECTIVE AND OBJECTIVE.

THE Kantian doctrine of knowledge, apart from many of its special features, seemed to involve something of that general character which constitutes Subjective Idealism. It is true that, in the form in which that theory was definitely expressed by the modern thinkers who first elaborated it, the Cartesians, it was rejected by Kant. The Cartesian view implied that reference to the reality of the external world was in its nature an inference, based on a comparison instituted by the subject himself among the contents or states of his own conscious experience. Some of these contents presented features which, it was supposed, compelled the thinking subject to regard them as representative of a reality other than themselves. Kant, to all appearance, is emphatic in denying the inferential character of this reference to something which, metaphorically, is said to be outside of consciousness. It seemed to be his view that, from the outset, and owing

finally to the difference between space and time, our sense-experience exhibited a difference in kind. Its contents were either space-qualified or not space-qualified. The former constituted sense-objects; and external perception seemed therefore to be taken as an immediate and, in one aspect, almost simple act of apprehension.

Nevertheless, seeing that Kant did not regard perception as exclusively belonging to sense-affection, seeing that the special feature in such perception—reference to object—was assigned by him to understanding not to sense, his theory still retained something of the indirectness which is peculiar to the Cartesian view. Nor is it easy to determine which of the two factors in his representation of perception is to be regarded as the more important and fundamental —the original space-qualification of certain presentations which seems to give *immediacy* to external perception, or the introduction through understanding of the thought of object, which again seems to give *mediate* character to perceiving.

Under either interpretation, however, Kant always insists that what we call external objects are no more than determined complexes of presentations, and thus accepts what is undoubtedly the principle at the root of all Subjective Idealism—that, from the nature of consciousness, what is apprehended can be only subjective experience.

Is this principle justifiable? Is it not impossible that we should consistently maintain the limitation of apprehension to subjective experience, and give, at the same time, any significance at all to the term 'subjective' itself? May it not even be doubted whether we do possess the apprehension of subjective experience, which is assumed in this principle? Kant's own discussion of problematical or Cartesian Idealism brought him face to face with this latter question; and, as we saw, he seemed to arrive at the conclusion that, in fact, determined apprehension of space-related objects preceded and

was the condition of any apprehension of what might be called subjective experience.

Perhaps then, we may conjecture, there is a confusion somewhere, a confusion between two propositions resembling one another in verbal statement: the one, that knowledge, as a modification of consciousness, is necessarily of the nature of consciousness, and is therefore subjective experience; the other, that knowledge is not only conterminous with consciousness in range but has only consciousness as its object. The first proposition no one can doubt. As to the second, to me it presents itself as one extraordinarily hard to believe, most difficult even to understand. In regard to it, I think it doubtful whether we ever have knowledge of subjective experience as such; that is to say, whether subjective experience is ever presented as object known. But, waiving this doubt, I should say, with respect to the general proposition, that it quite misconceives the nature of what is described in it as subjective experience. It proceeds on an assumption, for which there are no grounds either in general theory or in special experience, that in the genesis of knowledge we start with the determination of the contents presented *as subjective*, as forming therefore part of the inner life of a finite subject. From this position it has always been felt that any transition, any reference to what is sometimes called the trans-subjective, is either inexplicable or involves an appeal to something lying beyond consciousness itself. Kant makes his transition by calling in the function of understanding, which somehow imposes upon the contents of sense-consciousness, in their two distinct kinds, the reference to an object. His followers, finding it somewhat difficult to make definite the solution thus suggested, interpret the function of understanding as more specifically the function of causality or causal explanation. Schopenhauer, for example, professing to adopt the Kantian analysis

of knowledge, tells us that the apprehension of an external world springs up when the understanding exercises upon sensations its function of referring them to a cause.[1] The external, the trans-subjective, is that which is posited as the cause of the affections of sense, and understanding has no other function than to give this trans-subjective reference to sensation.

Obviously it is presupposed in any such explanation that the specific character, being trans-subjective, comes from recognition—and, we must suppose, a prior recognition—on our part, of the subjective character of the sense-experiences which are taken to be effects.

Following out this line of argument, we may fairly insist that, before any assumption is made that would require us to raise the probably unanswerable question, how the subject with only subjective experiences of his own forms even the notion of an objective, of that which is trans-subjective, we should ask, How does the subject come to define his own mode of existence, to characterise his experience, as subjective? The Cartesian Idealism had started from the position that such determination of experience was the prior fact in knowledge: making indeed, as we can now see, a quite illegitimate identification of the two propositions—that whatever is known is known through consciousness, and that what is known primarily and directly is the inner experience of the conscious subject. And it has often been insisted, in defiance of all the experience we possess, that in fact our knowledge of inner subjective experience is direct and certain, while that of so-called outer objects is mediate and uncertain.

Were we to deal fairly with the distinction implied in the term 'subjective,' we should be compelled, I think, to say

[1] [Die Welt als Wille und Vorstellung, § 4; Werke (1873), ii. 13.]

that, neither chronologically nor logically, does the recognition of the subjective character of inner experience precede external perception—the recognition, that is, of an 'objective' that is wholly distinct from the inner life. In other words, we should have to insist that there is a profound difference of meaning between consciousness and the recognition of certain experiences as forming the inner life of a finite subject; for it must be noted that subjective or problematical Idealism would have no meaning if the subject referred to were not the finite subject to whom the inner experiences are supposed to belong. If any one pleases, he may say that the distinction here drawn does not hold good in the case of an infinite subject—a case I do not at present consider.

Were this distinction admitted, we should then have to consider (and, indeed, it is the only way of obtaining a solution to this complicated question of Idealism) under what conditions there come to be defined in conscious experience the opposites—an inner life of a finite subject, and an objective world not identical in nature with the life of the finite subject, and, therefore, to be called trans-subjective. It may be that we should find the reference to this trans-subjective to be involved in the most simple form of that recognition of an inner life on the part of a finite subject which constitutes the peculiar note of the subjective. In any case the reference to such a trans-subjective would constitute a moment in the life of the finite subject. But we should be entitled to separate and to consider apart the content of that reference, its signification, and the temporal occurrence of the act of reference which is an item in the life of the finite subject.

And here, in making this distinction, it is all-important to bear in mind that an act of apprehension has not its own content as the object to which reference is made. The content, that which gives definiteness to the apprehension, is

never itself an existent, either trans-subjective or intra-subjective; and, in large part, indeed, the perplexities of Subjective Idealism have come from identifying the content of an act of sense-apprehension with the object that is trans-subjective. The point of the argument which I have presently to develop is that only through the character of that which is apprehended and referred to the trans-subjective, does the subjective, the inner life of the finite self, receive definiteness of meaning: from which it would follow that we cannot suppose the first aspect of this trans-subjective to present itself in the fashion of a generalised notion, any more than we can suppose that the finite subject presents itself first in the fashion of that abstract self with which even its own inner experience may be contrasted. The Kantian way, then, of representing the machinery of perception seems quite to invert the true order of experience. We do not begin with the generalised conception of object, what one might call almost the logical aspect of necessary connexion: the object is at first determined in far simpler terms, and is, indeed, connected with, but not to be deduced from, the conception of logical necessity.

Putting it briefly, the analysis of conscious experience itself appears to warrant us in saying that primarily what are called 'acts' or 'states' of consciousness are not rightly conceived as having for their objects their own mode of existence as ways in which a subject is modified. That is to say, a presentation or idea is not to be regarded as an act of inner knowing which has for its object the presentation or idea itself. Regarded from the side of its existence, these acts or modes of consciousness are not objects of which the finite subject is aware; they are the successive modes of his own inner life, of which inner life as such the subject in turn becomes aware through the help of distinctions that are given in the content of the presentations and ideas. Thus

the antithesis of an inner life and an outer world, or of a subject and object in the concrete sense, must be regarded as a derivative fact, a construction, it may be called; and our first definite problem is to discover the features or characteristics of the given content which serve as foundation for the introduction of that antithesis or distinction into consciousness itself.

In dealing with this problem we must remember that what appears familiar from the point of view we ordinarily occupy —that of lookers-on at the processes of mind—must be supplemented by considering what consequences such familiar features may entail in the content, as that is looked at, so to speak, from within. For example, from the point of view of the looker-on, nothing is more characteristic of the process of perception than the given, determined, character of the successive presentations. It is indeed the general mark which is most easily singled out and applied to the whole class of sense-presentations, that they are given: they come and go independently. Such a description is perfectly justifiable from the point of view adopted; but it has significance for the actual development of consciousness only in so far as such feature introduces into the content of consciousness some ground of distinction which in turn may affect our thinking. I put this strongly, because it has become of late a favourite method of solving the problem of external perception to dwell upon this intrusive, independent, given, character of sensation: so much so, indeed, that not a few writers are to be found maintaining that in sensation there is given from the first the trans-subjective reference which characterises external perception as a whole.[1]

When sensation is said to contain in itself the trans-subjective reference, or to possess such a character of impressiveness, of being forced on us, as is equivalent to

[1] Cf. Spencer, Principles of Psychology, ii. 437, 494.

objective existence, we are bound to ask, What exactly is meant by the sensation? Is it sense-consciousness as a whole—the totality of such contents of consciousness as the finite subject, throughout his development, or at any one stage of it, finds in his possession? or is it the isolated consequent of some isolated stimulation of a sense-organ? To identify the highly composite and involved perception of a matured mind with sensation is quite unscientific and illegitimate. To extract from the consciousness of the ordinary observer what he supposes himself to perceive is to undertake a perfectly needless analysis; for the supposed observer can only describe in terms which are already determined by the distinction which we are seeking to clear up.

Neither, then, from the plain man nor from the isolated sensation can there be drawn the conclusion that objectivity is directly given as an element of experience which requires no further explanation. It stands to reason that objectivity, like every other generalisation, should have gone through a series of transformations, and that the developed sense of the objective, which is really of the nature of a conception or thought, while it may rest on certain primitive distinctions in consciousness, is not to be identified with them. That developed sense signifies for Spencer, for example, the very elaborate conception, resembling that of the Kantian thing-in-itself, of a ground of existence manifested in, but distinct from, all the phenomena of outer or inner experience. There may be some connexion between Crude Realism and this Transfigured Realism. But they are not identical: the former, if taken as an absolute, would flatly contradict the latter, and can hardly be supposed, therefore, to be in itself the simple datum from which the latter has developed.

It cannot, then, be in the sensation nor even in its given

character, if that be taken alone, that consciousness finds the first occasion for drawing, however imperfectly, the distinction between subjective and objective. Can we select any aspect of the given contents which shall serve for this indispensable advance in our thinking? I am bound to say that to me the primitive characteristic seems to be that which lies at the foundation of all our representations of space. It is because in our experience there is given a broad distinction between two features of the contents — on the one hand that of extension, on the other hand the negative thereof (the absence of extendedness) with, probably, as its positive associate, the element of feeling—that we are first enabled to make a distinction between subjective and objective. It is not at all necessary to assume, as Kant appears to have done, that, because of the part which the space-element thus plays in the development of mind, space is therefore to be regarded as forming from the first either a distinct content of consciousness, or a part, irreducible and inexplicable, of some contents only. The function which the space-character discharges in the development of consciousness is quite independent of what we may call the psychological simplicity or complexity of that space-character itself. Thus, for example, it is perfectly legitimate to maintain that the presentations of touch and vision are not in themselves originally extended—to which proposition, indeed, it is hard to assign any meaning—and at the same time to insist that it is only through the establishment of the space-character of certain sense-presentations, pre-eminently those of touch and vision, that a foundation is obtained for the objective. Every one would admit that the presentations of touch and vision have in themselves features which render possible in their regard the establishment of the space-character. I will not even deny that our developed representation of space carries with it much that is dependent wholly on

the visual and tactual presentations; but I should not on this account think it necessary to maintain that space was nothing but a peculiarity of our visual and tactual presentations.

Space, then, or perhaps better, the space-character in certain contents of our sense-experience, seems that which gives the first line of distinction between subjective and objective. Taken alone, no doubt, it would not carry us far; but we find that it is involved in all the more ample distinctions that we are enabled to draw, and which we do draw, with the help of accumulated and connected sense-presentations. Among such additions, place undoubtedly must be given to that which has been called the independent intrusive character of sensation—a distinction which makes its appearance in the content apprehended, and which is not to be regarded as merely a difference in the way of having the same contents. Such a confusion arises only from our persistent habit of representing the contents of our experience as definite and isolated units. The proper unit of our experience from first to last is the total content of any moment of consciousness; and, so regarded, it is evident that the difference between an actual sense-presentation and its image is rightly enough described as a difference in the content of our experience.

All the helps which we devise for further defining the objective are complementary to the initial distinction between the extended and the non-extended. Such a distinction, therefore, we are entitled to regard as a condition of consciousness or intelligence in general; that is to say, only on the basis of such a recognised opposition between extended and non-extended is any consciousness of self possible. Space, therefore, if we speak quite generally, may undoubtedly have the function, assigned to it by Kant,

of being a condition of experience. It is the universal form of the objective.

Two points in Kant's doctrine stand out prominently: that space is pereeptive, an intuition not a notion; and, secondly, that space is subjeetive, a form of our intuition. As regards the latter, even were its expression modified, we should find it impossible to accept it. It is reversing altogether the real order of development to regard space as in any way a condition imposed by the subject on the contents of his experience. It is only in so far as the distinction marked by space and its absence is in consciousness that a subject becomes possible. The generality or universality of spaee is in no way endangered by removing space from its ambiguous position as a form of mind. Rather, perhaps, one might say that the universality of spaee is better preserved when we regard it as the condition under which mind itself, consciousness of subjective existenee, beeomes possible.

As regards the former point, there can be no doubt, from the primitive fundamental character of the space-element, that it may rightly enough be connected more specially with the perceptive side of our experienee than with the concceptive. It is an element involved in the eontent of any apprehension of the objective, and therefore can never be supposed to be first reached by comparison of the objeetive and generalisation therefrom. Nevertheless, it would be an error to suppose that the first, the crudest, distinction in the life of knowledge is at the same time its final form. Our representation of space must undoubtedly correspond to the increased fulness and eomplexity of our representation of the objective. We shall find it necessary to admit that, in the developed representation of spaee which corresponds to our developed consciousness of self and the outer world, there are many features—its

unity, continuity, homogeneity—that can hardly, by any straining of the term 'perception,' be called perceptive. It is a question whether that most baffling of all the aspects of space, its quantity, ought not also to be regarded as belonging rather to the conceptual development of the experience than to the perceptive. Kant insists that space is represented as an infinite given quantum: taking its infinitude, therefore, as, so to speak, perceptual. He is not equally forward to declare that the infinite divisibility of space is given in perception. It is worth considering whether the defined characteristics of infinitude, as regards both extent or compass and divisibility, are not more correctly to be interpreted as conceptual additions, the products of abstracting thought working upon the primitive space-character, and whether the difficulties we find ourselves involved in with respect to them are not themselves consequences of the failure of our abstracting thought to do justice to the peculiarity of the space-character.

The view taken coincides so far with the Kantian that it accepts space as being the fundamental characteristic of the not-self. It does not, however, regard this distinction between self and not-self, inner and outer, as being, so to speak, prior to the space-character itself. Rather, the space-character is to be conceived of as the fundamental, as that, with the help of which, later, the more elaborate representation of the external is attained.

To be extended, then, might fairly enough be called the 'form' of externality; and, to that extent, there seems to be justification for Kant's way of defining space as the 'form' of outer sense. Only it is necessary to withdraw from that definition whatsoever in the Kantian distinction between matter and form is implied as to a contribution from the side of mind to otherwise unformed matter. It is needless, and indeed impossible, to represent mind as, in its own

nature and from its own possessions, responsible for the clothing of sense-material with the form of space. On the contrary, only in and through that distinction in experience which is marked by the space-character of the contents of perception, can there be said to become possible a mind or inner life at all. The functions which Kant assigned to space remain untouched after this modification of his view. Its universality and necessity stand out even more clearly. It is at once the simplest condition of the possibility of objective experience and the ultimate predicate which is assignable to the object perceived.

In another feature still the view taken coincides with the Kantian doctrine: the space-element is beyond all doubt the characteristic of the object, of the object perceived; and it is so as constituting the primitive condition of the existence of any such object. Space, therefore, in its simple ultimate form, may rightly enough be regarded as perceptual, as attaching to the thing perceived, not to any process of a reflective kind which we may exercise upon such objects. It is perfectly unnecessary, in order to secure this feature of space, to insist, in the Kantian fashion, on the absoluteness of a distinction between perception and the reflective process of thought. All that is necessary is to retain the primitive position of the space-character as lying at the foundation of objective experience, and therefore to distinguish from what is necessary in the representation of this its primitive function, the other modes of representation of space which naturally and inevitably are developed from it. For objective experience, constituted by space, forms the matter of our reflexion, of our thinking; and, of necessity, the space-element likewise undergoes the operation of reflexion and generalisation. In truth, many of the features by which we characterise space are only intelligible when taken in relation to our developed representation of the objective world of

experience. That space is one, single in nature, continuous, homogeneous, distinct from the things filling it up—these are features which bear all the marks of abstract thinking. They constitute a *conception* of space, and a conception which, at more than one point, seems to involve us in some perplexity when we compare it with what is contained in the primitive characteristic.

For the moment let the terms 'perceptual' and 'conceptual' be employed to indicate the difference between the character of space as the simple determining factor of the external object, and the aspect of space conceived of as a whole with a certain distinction from its contents.

The feature of conceptual space, which most directly and immediately brings these perplexities before us, is its quantity; and, in relation to one or two remarks of Kant's, it is worth asking whether there are not two quite distinct senses in which 'quantity' of space may be referred to. Kant, it will be remembered, in the Æsthetic speaks of space as though it were an infinite given whole, and, in connexion with this, notes that spaces are only determined as limitations of space.[1] In the System of Principles of the Pure Understanding, we find Kant reaching his general axiom regarding extension, extensive quanta, by using the general position that space is an extensive quantum, a quantity in which the whole is possible through the representation of the parts.[2] In the second Antinomy he will be found again declining to admit that space is a *compositum*, at all events a *compositum reale*: it is not made up of parts; at best he thinks it can be called *compositum ideale*.[3] And, finally, in the Critique of Judgment, he seems to approach most definitely of all, though

[1] [Kritik, A, 25; B, 39; M, 24.]
[2] [Kritik, A, 162; B, 203; M, 274.]
[3] [Kritik, A, 439; B, 467; M, 123.]

in reference to a special problem, a distinction between the perceptual and conceptual senses of a quantum.[1]

As bearing on this, let us consider the method of estimating the magnitude of space. It is in all cases a process of comparison, the application of a unit of measurement; and, when developed, it involves two things: one of which may be called purely logical, the work of thought, and this is the process or method of calculation; the other is connected more closely with the nature of the thing to be estimated, the determination of a unit.

Whatever other features the process of calculating may have, at least it abstracts—abstracts, indeed, as far as is possible—and, in the process, is invariably compelled to give a certain definiteness to its units, to separate them from one another to such an extent as may prove to be incompatible with the properties, the characteristics, of that which is to be calculated. Everywhere throughout the process of calculation —and of such process the numerical is the typical form—however abstract the quantities may be, there will be found invariably combined, or at least side by side, the two aspects of discrete and continuous quantity. That is to say, numbers themselves will always be found to involve, when taken in their systematic representation, both features: discreteness and continuity. But these features are only combined in the whole systematic representation of numbers. Taken by themselves, in isolation, the numbers seem to fall into kinds, either continuous or discrete, or, perhaps, to be exclusively of the kind we call discrete. I doubt whether discreteness is to be absolutely assigned to numbers, and, therefore, whether the opposition between discrete and continuous quantity is to be made to turn solely on the difference between the separating process of enumeration

[1] Kritik der Urtheilskraft, §§ 25, 26; [R, iv. 104-6; H, v. 258-9; tr. Bernard, pp. 106-7].

and the continuous alteration of actual concrete quantities or quanta.

When the numbers by which we estimate the quantity or magnitude of a given perceptual object have this aspect of discreteness, the error or perplexity into which we are led will be found in the long run to consist in overlooking the deficiency of the abstract representation as a complete account of the concrete whole. For example, the representation of a given space as made up of the fractional parts into which we may divide it overlooks the difference between the abstract representation thus gained and the concrete whole which is disclosed when the question is asked, What then really separates these parts from one another?

The moment this question is put, we recognise that our abstract representation is in itself imperfect, and that its imperfection is not avoided if we simply add that the parts may be made as small as we like. It is only to be finally overcome when it is recognised that the position of limits at all within the given concrete whole is arbitrary or ideal, and that this arbitrariness or ideality is in fact what we mean by saying that the parts may be made as small as we like, that the number of them can never be exhausted, that each part of space is infinitely divisible. For, obviously, this implies that the divided parts, as they are called, are not really the components (for, undoubtedly, no really infinite number anywhere exists), but that our proposition expressed in terms of number — the assertion of infinite divisibility, infinite diminution of parts—is but the abstract expression of the inexhaustibility, the endless capacity for being divided, of a really continuous whole.

Is it possible then to apply this in the counter direction, to what is called the infinity of space? On the one hand one must say that, if there be here understood the determination of the magnitude of space as a calculable quantity,

then no answer is at all possible. From that point of view space could be described neither as finite nor as infinite. But, on the other hand, as space is the fundamental character of the external objective world, as its infinity indicates in one way the limitation of all perceptive existence, then it may be that our abstract representation of infinitude of space has something actually corresponding to it in the character of real space as continuous. It cannot signify, as I said, that space is a quantity; and the fact that our numbers, by which we might express the magnitude of space, find no end, is after all nothing more than the abstract expression of the inexhaustibility of space as a factor in our objective experience.

The distinction drawn between the perceptual and the conceptual aspects of space is by no means intended to carry with it the consequence that truth as regards space rests exclusively with the one, the perceptual, and that the apparent contradictions in our representation of space as continuous and infinite (contradictions which appear most markedly when we apply enumeration to space) are to be explained by referring them to some assumed limitation or imperfection of conception or thought.

On the contrary, I wish to point out that the contradictions, the imperfections, appear only when there is taken as exhaustive what is only one of the features of space-as-conceived. If we represent to ourselves the conceived space as made up of discrete parts, we are emphasising only one of the two indispensable features which, taken in combination, form our conception of space. It is just as necessary to keep in view what likewise attaches to the act of conceiving, namely, the representation that the limit, that which gives discreteness, may be placed anywhere, and that the selection therefore of a definite part, the delimitation, is only one-half of the complete process of conceiving space. There is

not, therefore, in the strict sense of the term 'contradiction,' a contradiction in our conception of space. There is a contradiction only if we place over against one another, as complete and independent thoughts, the two aspects of extended quantity—its discreteness and its continuity—and insist that each of these constitutes the notion of space. As I understand it, this is precisely the line of consideration which runs throughout the whole of the Hegelian dialectic: the reconciliation or harmonising of opposites is nothing but the recognition of the essentially complementary nature of two partial representations, which, if isolated from one another, undoubtedly present the appearance of contradiction. Nothing is gained by adopting a line which Lotze too often seems to follow—throwing the contradiction as a burden upon thought, while allowing to perception the possession of a completely harmonious apprehension. Such is the line, for example, followed by Lotze with respect to the important notion we shall next take up, that of Change.

CHAPTER II.

CHANGE AND TIME.

I BEGIN with the notion Change, because in the long run it will be found that all perplexities with respect to time, and the representation of time, resolve themselves into a conflict of view regarding change. There need be no hesitation in allowing, with respect to time as with respect to space, that the completed representation of it with which we begin our analysis is a composite fact, a product, as it might be called, of perceptive elements elaborated by thought. And, in respect to this composite representation, we may undoubtedly have to admit that some features of it are justly to be entitled subjective, that is to say, have nothing corresponding to them in the nature of reality. Even in the case of space, as we saw, the representation of it as a void containing reality is subjective only. In like manner the representation, whether of void time as that in which events occur, or of time itself as a mere stream or sequence, may rightly be regarded as due solely to our habitual tendency to give the aspect of substantive reality to what is in its own nature incapable of that mode of existence.

It is, then, the fundamental fact of change which lies at the foundation of any representation of time; and our first problem is to consider whether change forms or does not form a constituent, an aspect, of reality.

It may be well to begin the discussion by considering the point of view from which it is held that the very nature of reality excludes the aspect of change. Such a point of view seems to correspond to a deep-seated tendency of human thinking. The contrast between the changeable and the unchanging seems very much the same as that between the apparent and the real. Absoluteness of existence seems to require absence of change. And, consequently, from this point of view, the presence of change seems to be the characteristic mark of the phenomenal, of the apparent, as contrasted with ultimate existence, the real. Obviously, it is easy to connect with this distinction the correlative difference between perceiving and logical thought. The thing perceived may change while yet retaining its unity, though, it may be, in a very obscure and indeterminate fashion; the content of a notion is an absolute unit: alteration there is simply substitution of one unit for another. So in like manner simple qualities can undergo no change: change, in their regard, as in respect to notions, means simply the substitution of one for another. If we think otherwise, we are deceived by substituting for what may be supposed to be the real subject of change a merely subjective factor, the generalised representation of which the simple quality is supposed to be an example.

From this point of view, then, the very characteristic of the real is taken to be absence of change. In modern philosophy the point of view is occupied and represented by Herbart's metaphysic. Herbart proceeds throughout on the general principle that the ultimate elements of reality are and must be unchanging, and that change, if requiring to be accounted for at all, must find explanation through the hypothesis of variable relations among the elements of reality —the reals.[1]

[1] [Allgemeine Metaphysik, § 229.]

In this, it will be observed, Herbart might be regarded as only carrying out to the ultimate degree of abstraction a mode of thought current in the scientific explanation of nature. For it would certainly be fair to represent the general idea of explanation of a physical event as being the reference of it to a change in the relations—as, for example, the relative positions—of ultimate elements that are conceived as themselves unchanging. It is characteristic of one way of expounding the general mechanical conception of external nature—Atomism—that it represents all derivative complex occurrences as coming about from the changing relations of the atoms which are themselves conceived, obscurely enough no doubt, as unchanging. The same type of explanation is involved to a certain extent in the less definite view which refers a complex phenomenon to the concurrence of what is formulated in a number of more general laws. The content of each general law is, relatively at least, the unchanging; and the change which characterises the complex event is explained as coming about through the combination, the conjunction, of a number of these isolated generalities.

Changeable relations, then, among the reals—such is the solvent for the perplexity of change. But, obviously, even if the conception of changing relations were allowed to pass unquestioned, the solution would be at best partial. For it certainly does not enable us to answer the further inevitable question, What takes place in consequence of the changing relations of the reals? Does anything happen? If nothing happens, the hypothesis is needless; if anything does happen, what is its nature? and how is it to be characterised in contrast with the assumed unchangeable nature of the reals? Fashion as we may the picture of the changing relations of the reals to one another, we cannot escape the dilemma. Either nothing happens at all, in which case the hypothesis

is needless; or if something happens, its locus must be determined.

Herbart was fully alive to the dilemma as here stated; and his solution, which we may disencumber of all that forms part of his special mode of treatment, may be taken to represent the only answer that can be given from the point of view occupied, namely, that reality in its own nature excludes change. Nothing would happen were it not that the reals must be credited with a certain reaction which is dependent on the change of their relations to other reals.

Abstractly, this may be taken to be no more than the implied significance of the unchangeableness of each real; but, concretely, it can only be interpreted as something more. Abstractly, it might be taken to mean merely that each real remains unchanged; but, concretely, that 'remaining unchanged' must signify, as Herbart puts it, self-maintenance on the part of each real[1]—a position which undoubtedly implies that in fact, however inexplicable it may be, the changing relation signifies something for each real, constitutes, as one might say, a pressure on it which is resisted as a consequence of the nature of each real, its permanent self-identity.

Obviously such self-maintenance is a mere abstract term except in one case—the case in which the acts of self-maintenance constitute the inner experiences of the real itself. Thus at the second remove, so to speak, the changing relations account for something that happens, the 'something that happens' being the subjective experiences constituting a conscious life. In this way, with the exception of the hypothetical—let it be called objective—fact of changing relations, change is here interpreted as attaching wholly to the subjective. Just as change, then, is wholly subjective,

[1] [Allgemeine Metaphysik, § 234 ff.]

so these developed representations which by laws of the mechanism of mind arise out of its changing states—time, for instance—are subjective only. The real is wholly unaffected by time. All time-distinctions are subjective merely.

We shall disembarrass this representation from the one inexplicable factor in it, the changing relations; for undoubtedly it is impossible to admit of any half-way house between the real and the phenomenal. The variable relations cannot be called real, nor can they be called phenomenal. Doubtless they seem to be called for in order to explain how anything should happen in the phenomenal. But, if they are justifiable at all, they must be ascribed to reality; and it would be impossible, therefore, to retain the absolute exclusion of the element of change from the structure of reality.

Inconsistent as it is, then, Herbart's point of view represents one type of answer to the question; and, according to it, the real by its nature excludes change; wherever there is change there is the relatively non-real, or phenomenal; and such phenomenal is to be found only in subjective experience.

That Time is only a form of the perceiving subject is the ordinary fashion in which the Kantian doctrine is expressed; and, when Kant was confronted with the argument urged against his view, that changes are real, he thought it possible and sufficient as answer to draw the distinction between empirical reality and transcendental ideality. By this he meant: in the content of the sensuously determined experience of a conscious subject change is unquestionably real, and therewith also reality may be accorded to time; but, if the conception be formed of reality that is not within the sensuous experience of a conscious subject—such reality as

he names the thing-in-itself,—then, with respect to that, time has no application or significance, and, therewith, the conception of change in such reality becomes meaningless.

But in this answer one can trace and must recognise the ambiguity which attaches to the whole Kantian doctrine of perception. Our knowledge of an orderly changing world of extended things may be no more than the predetermined way in which the contents of consciousness are arranged so as to make possible the recognition of his own identity on the part of the subject; but are the objects of which the subject supposes himself to have knowledge to be interpreted literally, as regards their mode of existence, as nothing but combinations of sense-presentations under the formal laws of the perceiving power?

The distinction which Kant draws between the wholly general conditions of the possibility of self-consciousness and the realisation of experience in the finite mode of existence of a single concrete subject, would, if carried out, render necessary the admission that, in some way, the objective common world of perceived fact is, as existing, distinct from and relatively independent of the subjective experiences of finite minds. It is with respect to such a distinction that the question as to the legitimacy of defining time as merely a form of the perceiving subject becomes important. If the subject be interpreted as the finite mind, which is itself, as existing, a part of the larger whole, then to ascribe to it as its function the investment of the content of its experience with time as a form that has only subjective significance, becomes an inconceivable thought; for undoubtedly we cannot dismiss as of no significance what must be called the adaptation of the content of his experience to this subjective function. In the case of the space-form, it seems more possible to represent to oneself the peculiar arrangement of perceived content as

corresponding to some objective order which is not in its own nature that of space. On the other hand it is, I think, correct to say that we find it altogether impossible to form the idea that the arrangement of our perceptive or real experience in the form of time is likewise a response which has corresponding to it an objective reality wholly devoid of time-relation. We should still require to acknowledge the time-relation as applying not merely to the supposed contents arranged by us but to the acts, the successive processes, of the subject himself whereby these contents are apprehended. That is to say, we must at all events assign the time-relation as a reality to the subject himself. His own nature must contain in it just that element of change which lies at the foundation of time.

It is then, I think, altogether impossible to accept, in the manner in which Kant expresses it, the proposition that time is subjective only. There may be, perhaps there must be, in our developed conception of time, features that may be described as subjective only, features in respect to which we shall probably discover just the kind of perplexities or contradictions that indicate an imperfect or one-sided notion. For example, in the developed conception of time, we undoubtedly tend to represent the divisions of time—the past, present, and future—in such an abstract fashion as to expose the whole thought to the same contradictions as those, for instance, that appear when we consider the application of number to space. The present, conceived in this abstract way, has to be represented as a mere vanishing point; and if the content of reality be, as our abstract conception leads us to express it, contained in time, it likewise is reduced to a vanishing indeterminable quantity. As we shall see, the abstract conception of time, as this mere sequence of past, present, future, is not a complete defensible thought, nor is there anything but confusion in the supposed relation im-

plied in the expression 'reality is in time.' The image or phantasm of time as that in which reality is given is certainly to be regarded as subjective only; for by 'subjective only' we mean a thought, or the content of a thought, which is divorced from its necessary complements, and to which, therefore, the objective significance given is quite without justification. It would be more correct to say that time is in reality, though no doubt the image implied in this expression also has something of the subjective attaching to it.

So far, then, change cannot be excluded by being assigned simply to the perceiving or apprehending subject. What has been said of time applies, in strictness, to the more fundamental conception of change. It is a quite unworkable thought—that of an unchanging reality which, by reason of its being apprehended by a subject, should exhibit change as a feature of its general character. In order to frame such a representation we are compelled to make the most illegitimate of all the distinctions that thought indulges in,—the distinction of the subject from reality itself. Whatever may be the conditions of knowledge on the part of the subject, he can only be represented as a part of the sum-total of reality: we cannot oppose to one another in thought, as our language induces us to do, the subject and the totality of real fact.

Are we then, on any other grounds, precluded from accepting change as a fundamental feature of the very nature of reality? The only ground advanced is that change, so assigned to reality, renders the nature of reality self-contradictory. The contradiction, it appears to me, however, is ill-described as in reality itself. It is a contradiction between the notions which we apply to determine the nature of reality; and the contradictoriness may arise solely from the inadequacy, the incompleteness, of the notions with which

we confront reality. Just as, in the case of the space-representation and its continuity, we saw that the contradictions signified only that we were seeking to determine the nature of space by a notion—the discrete unit—wholly inadequate for the purpose, a notion which preserved only one part of what was required; so it may be in the case of change and reality. If we represent change as mere alternation, as sequence, doubtless we shall find that the successive positions, each taken for itself, are repugnant to the notion of continuous alteration in that which preserves, nevertheless, a certain identity or unity. But it is not clear that the notion of sequence, of alternation, is a completed thought; nay, it may even be urged that it is, in itself, an impossible thought. Whether for our experience or for that which we regard as the object of experience, it appears necessary, in order that there should be either subject to know or object to be known, that on both sides there should be continuous modification with the preservation of a certain element of identity or unity. There is no necessity for repeating the original error of our abstracting and imperfect conception, and insisting that the identical uniting element should be a separate portion to which the others are either added or from which they are withdrawn. For, in such a conception, we shall still be confronted with the confusion which supposes that change can be denied to the real itself but may be allowed to the relations among it; for the additions and subtractions are just the changing of relations among the reals.

There is, then, no contradiction in the completed notion of change. It is only when we separate the thoughts that are contained in that complex notion, and take each in isolation, just as, for example, when we insist on separating the thing from its relations, that we find contradiction; and the contradiction, let it be noted, is not between the two

isolated parts of the complete notion, but between either of these taken alone and the completed fact.

Lotze, who acknowledges in his own way that change is the fundamental general characteristic of the real, inclines to regard the contradiction as arising solely from the difference between perception and conception.[1] In the region of perception change is given; it is unthinkable in the region of conception. But this antithesis is far too sharply expressed: not only is it impossible to accept the complete separation of perceiving and conceiving; it is equally impossible to assign to any function which, as here, is taken to be pure direct immediate apprehension, the knowledge of change. Emphatically change is a complex; and the apprehension of it, subjectively, is correspondingly complex; while, finally, it cannot be admitted that the conception of change is self-contradictory: the contradiction, as I say, only arises if a partial aspect of the whole fact, that is, a half-thought, is regarded as containing the whole.

Just in the same way, psychologically, we should find it necessary to say that the time-relation is not apprehended in the form of a sequence or succession of experiences which is either related to or held together by some permanent other than themselves. The fundamental experience in the development of the time-perception is not so much sequence as duration,—a complex which contains in it both the elements that we lay out separately in the more logically determined thoughts, the permanent and the successive. The difficulties we experience in handling the abstract representation of time arise mainly from the fact that we interpret the complex whole by using alternately, or, at all events, as though they were quite distinct from one another, the half-thoughts —permanence and succession—either of which, closely re-

[1] [Cf. Metaphysic, E. T., pp. 1, 73, and Book I. c. iv.; Book II. c. iii.]

garded, shows itself to require the other, and to be, therefore, but an incomplete idea.

Such change in reality I regard as in no possible sense of the term self-contradictory. Change in the real we accept as a feature characterising its own nature, not to be explained, therefore, by referring it to the realm of appearance while it is denied to reality itself. The Kantian view to some extent seems to follow this line; for it insists upon what it calls the merely empirical character of real change, and therefore by implication denies change of what is contrasted with the empirical as real. At the same time it must be remembered that this empirical reality signifies, in the long run, for Kant, subjectivity; and quite in accordance with this view is the familiar position of his doctrine respecting time, that it is but a form of intuition, a mode, therefore, in which the subject becomes aware of his own experiences.

Taken literally, this position is self-contradictory. We do not really evade the supposed difficulties in the conception of change by handing them over to the subjective. None the less the Kantian position raises the interesting question, What relation obtains between the metaphysical doctrine that the real is in its own nature changeable, and the peculiarities of our representation of time? Does our representation of time accurately correspond to the metaphysical truth, that the real is changeable? May it not contain in it features which are rightly to be described as subjective—that is to say, explained as resting on special features of the relation in which the receptive subject stands to the all-embracing reality?

In dealing with this question it is requisite, as in the parallel case of space, to call attention to the differences of meaning that attach to the representation of time in our apprehension. Without adopting, in Kant's absolute fashion,

the distinction between perception and conception, we must allow that the developed representation of time, like the developed representation of void space, differs from the primitive form of time-perception, involves features which indicate the work of abstracting thought, and appears to claim, finally, to be the representation of something which has a kind of independent being.

The conception of time is always wrought out with the help of analogies from the space-representation; yet it is obvious that the elementary experiences in and through which space and time are first given in perception are distinct from one another. We have nothing in the case of time corresponding to that apparently single comprehensive intuition which is the first form of the space-perception. Even, therefore, though we were to suppose that the fundamental features of sense-experience from which the representation of time develops are as simple, as primitive, as those of space, we should still have to allow that the time-representation is the more complex in its character, less easily developed, and that in all probability the higher forms of it are always dependent for their appearance on the establishment of a fairly complete space-perception.

The image of time which we apply most readily—time as a stream, a flow, of events—is obviously spatial in origin; and it must always retain the incompleteness which arises from the whole character of time being represented as given in the object. Not only is it really an impossible image, that of mere sequence; its special defect is the oversight of the reference to the changes in the apprehending subject, which can by no means be excluded from the total experience, or, therefore, from the adequate representation of time. From this, indeed, it results that any representation of time, which seeks to present the time-features as characters of an object contrasted with the subject, must be defective.

Thus, then, although we allow with Kant that time concerns the fundamental, the perceptive, elements of our experience, we are, at the same time, bound to correct his view, and to point out that the representation of time is never possible as a single perception. It has always the complexity which results from the need of holding together the change which applies both to the object perceived and to the perceiving subject.

Equally defective is the image wherein we represent time as the unmoving framework of change — a representation corresponding really to that division which our abstracting thought introduces into the experience of time: its separation into moments, each of which is sought to be conceived as unchanging. But just as little as space is made up of unextended points, so little is time made up of unchanging present moments.

With these images there also goes the interpretation which we are apt to put upon the fundamental distinctions of present, past, and future. The same logical abstraction leads us to endeavour to represent the whole of reality as, so to speak, summed up in the momentary unchanging present—a present, indeed, which dissolves away so soon as the other edge of the abstraction is turned upon it, so soon, that is, as we recall the consideration that the unchanging moment is the non-existent. It is as a result of this abstraction that we represent the past and future as unreal. But, in point of fact, the notions of change itself, and of continuity of change, compel us to regard the present as not the indefinable moment with no difference in it at all, but as that which endures; and our representation of the changing reality is, therefore, just as truly the representation of a reality that endures as of the indeterminate series of momentary existences.

Perhaps, indeed, our image of time plays here even a more

destructive part. We cannot escape the implications of the expression that 'changes occur in time'; for thereby, on the one hand, we represent time as somehow outside of and embracing the changing whole; and, on the other hand, we are attempting the impossible task of representing all reality as an object within our experience,—an effort which inevitably leads to the contrast, adopted in many a metaphysical theory, between a timeless reality and the subjective temporal apprehension thereof by the individual mind.

In fine, then, we undoubtedly cannot accept the Kantian view of time as implying that change is a feature only of the inner experience of the subject. In that sense time is not subjective. On the other hand we may certainly allow that our representation of a changing reality, in the form of this intuition of time, has features which depend solely on the position of the subject in the sum-total of reality, and that therefore it is to that extent subjective in character.

It may be asked, What now is the real significance of this timelessness which is so often assigned to reality? It certainly does not imply that reality is the unchanging, nor can it imply, as we have seen, that temporal change is merely an appearance which reality presents when it is apprehended in the inner experiences of a perceiving subject. We are not without analogies to such timelessness in our experience. It might be said, for example, that the effort of all scientific explanation is to refer the apparent temporary chaos of phenomena to constancy of law and order, and that, in determining thus the permanent unchanging relations of change in phenomena, we are explaining the temporal by the timeless. In fact, generalising, it would seem as though wherever we have truth we have that which is so far independent of time, and therefore timeless. Most certainly, it has always been this characteristic of truth that, in the history of speculation, has given vitality to the conception of the time-

lessness of reality. It is, in fact, the familiar identification of truth and existence which lies at the foundation of all Platonism.

Such timelessness comes forward most obviously, no doubt, when the content represented has the generalised form peculiar to thought; but the fact is worth considering that the same feature presents itself wherever there is apprehension: in all apprehension there is a distinction established between the content apprehended and the concrete occurrence, the existence of the thing apprehended. The content may be, and often is, the representation of time-relations; but it is always in itself distinct from, separated from, the concrete existence of that which is represented.

Are we doing, then, injustice to the doctrine of the timelessness of reality, if we ascribe it in its entirety to this peculiarity of subjective apprehension, and maintain that, in strictness, the only timelessness in the case is but our way of representing in terms of concrete fact what is not itself a concrete fact at all but a characteristic only of subjective apprehension? The timelessness of truth is wholly misconceived if it be interpreted in terms of concrete existence. It has no meaning except as a characteristic of our apprehension of existence.

CHAPTER III.

CAUSATION.

We continue to represent the changing reality as in some way a unity or a whole, yet with the acknowledgment that, in this aspect, it can never be presented as one object of apprehension, and that therefore any representation, which would imply that the whole is given as a subject somehow distinguished from its changes, is self-contradictory. Yet the changing, we have insisted, is anything but the mere sequence of unrelated alternation. Constancy in some fashion is not so much postulated by change as involved in it. In what way is such constancy, connectedness of change, to be represented?

In point of fact we are aware of the answer in general terms to this question. Changes are connected just in so far as the changing reality is for us a systematic whole, that is, in so far as the changes it presents have a certain uniformity of character. In this answer, which is too general for metaphysic, there is implicit, no doubt, the well-worn notion of cause and effect, and to that notion I proceed.

Taking as our guiding thread again the Kantian work, we may, more briefly than in the case of the space and time forms, deal with his explanation of the causal relation. His work is evidently directed towards establishing for a self-conscious subject the representation of determined, that is,

constant, relations of phenomena as a representation that is legitimate because necessary. And here we may reject entirely all that concerns the machinery of the understanding. In regard to the problem itself, we have no right or ground to assume that absolute distinction between intuition and understanding on which Kant proceeds. We shall, therefore, at the same time, avoid encumbering our discussion with any doctrine that would appear to prescribe the form in which the representation of determined order in the object makes its appearance. If we go so far, we shall find that, while we may be adopting the Kantian view so far as to acknowledge the essential correlation between the two things—definite self-consciousness and representation of order in time-changes,—we are nevertheless rejecting the essential element of the Kantian explanation, that the latter of these is to be justified from the former. Inevitably in such a case, a certain priority is given to the justifying factor; whereas if it be the case, and in some sense it probably is the case, that unity of self-consciousness is correlated with representation of determined time-order, these two facts are to be explained together, as well as their correlation.

The representation with which we start in the application of the thought of cause and effect to experience, is derived mainly from two circumstances: (1) constancy of succession in the changes within our experience; and (2) the relatively subjective factor which takes expression in the term 'force.' I suppose it is impossible to lay out in detail the steps of the process by which these two work into one another. Obviously, the formation of the conception of force depends on the establishment in our conscious experience of a distinction between our own action and the behaviour of external things; and it seems clear that this distinction, in its turn, requires for its establishment some

amount at least of constancy of succession in the given material of experience. It is on this ground that I say it is probably impossible to make out in detail the steps of the process in which the first application of the thought of causal connexion is made to nature or to reality in general. There can be little doubt that, so far back as we can legitimately go in the conjectural history of human thinking, the first form of that application depends essentially on assimilating the change which takes place in our surroundings without our own intervention to the changes brought about by our own action. It is equally certain that, in order to form any conception of our own action and its consequences, there must be presupposed a tolerably definite representation of objective change; for even our own action, in its simplest forms, does not bring about results without mediation. We must, so to speak, have learned to count upon a constancy of connexion among the sequent changes of our surroundings, before we can fashion any definite representation of our own action as producing changes.

Now it is easy to see that, in this representation of our own action as giving rise to an effect, one feature in the problem of causation is involved. It is only a change, a new distribution of existing fact, which is connected in our thought with our own action as the producing cause.

At the same time there is also involved the feature which has always been thought to constitute the special problem in regard to the conception of cause: there is a generalisation. It ought never, however, to have been supposed that this generalisation brought with it any special problem. Generalisation, in fact, always goes through two stages in human consciousness. In the first it depends on the non-recognition of points of difference; in the second, its very essence consists in the recognition of identity amid differences. The first stage depends entirely on the simple psychological principle

that we always identify where difference does not force itself on our attention. Now the possibility of such a result of difference depends altogether on the extent and variety of our experiences. The narrower the range of our experience the more easily do we generalise, but at the same time the less is the scope of that generalisation. The problem which afterwards emerges is of a quite different kind: it is the logical problem, Under what conditions are we justified in supposing that identical elements are present in the midst of admitted and recognised differences? or, making the problem ultimate, How far is it possible that there should be identity of principle or structure amid difference of detail or manifestation?

This is the clue to what is partly a psychological problem, namely, the nature and development of our representation of an orderly course of nature. We always represent nature as orderly; but our representation, both of nature and of the kind of order that obtains in it, undergoes a steady and continuous alteration. If we pleased, we might, as Kant appears to do, adopt as a principle of reason the intelligibility of nature; for, in the long run, we mean by that no more than that, whatsoever the experience of a subject may be, it is of such a kind as to involve relation, interconnexion among its parts. What kind of relation and interconnexion, is in no way determined by the principle itself. Intelligibility of nature is a perfectly relative conception—a proposition which follows, indeed, directly from the essential correlation of subject and object.

No one would suppose that experience can fail to exercise, as it were, a critical influence on these first rudimentary representations of intelligibility in nature. The circumstances of ordinary life must soon have put an end to the kind of mythological interpretation which corresponds no

doubt to our first concrete thinking about changes in nature. An increasing preponderance would fall to the share of the other factor that always contributes to building up our representation of ordinary nature, namely, constancy of succession among the changes in experience.

These constancies of succession undoubtedly supply the first concrete pictures of causal connexion; and if we ask, On what mainly depended the further elaboration of the thought involved? we shall not be wrong in pointing for answer to the increased power, which experience itself confers, of determining what the content of the changes really is. Our increasing experience may be said to operate very much as an instrument of analysis: it enables us to break up what at first presents a kind of unity, to resolve it into its elements, and, thereby, introduces an exceedingly significant change into our way of representing even constant successions. They present themselves now as the resultants, the concrete expressions, of connexions themselves constant, but among elements which are not equally open to direct observation. Such a change, at the same time, enables a distinction to be made between constant sequences which indicate, and others which do not indicate, a connexion of the more abstract kind. It has always been pressed, as apparently a conclusive argument against the purely empirical interpretation of the causal conception, that experience does present to us perfectly constant successions for which nevertheless we do not accept, and are able to see reason for not accepting, the interpretation of cause and effect: for instance, the sequences of day and night, and of the seasons.

The purely empirical doctrine is indeed somewhat hard to define; for, so long as no indication is given of what it is that falls into constancy of succession, it is impossible to come to terms with the doctrine. In ultimate analysis

we may have no other description to offer of that interconnexion of the parts of reality which corresponds to our notion of cause than that it involves constancy of connexion, of sequence. But the empirical theory has generally either connected itself with the crude representation of constancy as affecting only the first, most direct, appearance of what is given in experience, or has been the expression of a totally unworkable psychological theory. In Hume's representation of it, for example, the decisive feature is the psychological theory, that consciousness veritably consists of a number of isolated states, each of which exists for itself and without relation to any other —a representation which is but the counterpart of the obscure metaphysical doctrine of reality as consisting of a number of absolutely distinct, independent, unchanging units. Neither conception is internally coherent; neither can be made to offer any explanation of our experience.

In his analysis of the causal principle, Lotze,[1] in the first place, clears the ground by noting that the scope of the principle of causation is limited to changes. This every one would allow. In the second place, he deals with that portion of our ordinary representation of cause and effect which introduces the conception of things. The cause is represented as a thing which in some way acts upon and produces an effect in another thing. Undoubtedly this is part of the ordinary representation, but it suffers from the obscurity which attaches to the conception of 'thing.' We may find it, however, of service later when we attempt to determine what corresponds, in our view of reality, to this distinction implied in the term 'thing.' In a vague way we represent reality as somehow consisting of things in relation to one another; and it may be possible, by a

[1] See Metaphysic, B. I. cc. iv.-v.; Grundzüge der Met., pt. i. cc. iv.-v.

reference to the decisive features of reality in general as represented by us, to determine what significance shall be allowed to the term 'things.'

Accepting, however, provisionally, this representation of action as involving the relation of one thing, the cause, to another, we follow Lotze to his third step, which consists in drawing attention to the peculiar character of the thought conveyed in the term 'acting upon another.' It is, he rightly points out, impossible to conceive of such action as consisting in the transference of some indefinable factor from the cause to the effect. Moreover, a very slight consideration enables us to introduce a further correction. It cannot be thought that the action consists solely in some putting forth of force or energy by the cause, which is therefore alone active, while that in which the effect is produced is only recipient, is purely passive. Whenever in our ordinary representation of one thing as acting upon another, we follow out the steps of the process, we find it necessary to introduce as a concurrent condition, as veritably part of the cause, the nature and reaction of that second thing in which the effect is said to be produced. And, accordingly, the cause must always be represented as a relation of some kind between two things, and the effect as a consequence which comes about when the two things are in some special relation to one another.

Now relations among things, in Lotze's view, are of two distinct kinds. On the one hand, when we compare two things, represent them together, we call their resemblance or difference a relation between them. Such relation, however, cannot be regarded as forming any part of the actual nature of the things compared. When we assign in thought to one of the objects the predicate 'like to' or 'different from' the other, the predicate cannot be interpreted as signifying any part of what constitutes the real nature of

the thing. On the other hand, there are relations which are wholly distinct in character, and of them the causal relation may be taken as typical. There, what is implied in the thought 'relation between the things' is an alteration really in both—though we think of it primarily as in one only—and forms part of the concrete reality of the related things. The change in each is something which affects its nature, and cannot be explained, as in the case of the relation of likeness or difference, by reference to something outside of the things themselves.

In what way, then (and this constitutes Lotze's final question), must we represent reality so as to make possible this twofold result: (1) that the things in causal relation are not isolated from one another; that action is not a process which passes between them, but a connected modification of both, in which both are equally concerned; and (2) the further result, that the modification cannot be represented as somehow external to the things, but must be thought as something which has significance for the things themselves.

To this comprehensive question Lotze's answer is, first: The thought of causal relation is possible only under the representation of all reality as a connected whole, a single united whole, change in any part of which indicates, and is in fact the expression of, a change of the whole. Reality must be represented as, so to speak, the varied manifestation of a single Infinite or Absolute. Only in this way is the isolation of things from one another to be overcome, which, if strictly insisted upon, defeats the thought of causal connexion.

In fact, then, what are called from our point of view the Cause and Effect, the changed condition of A and B, must be represented as in one sense in no way interdependent, but, on the other hand, as having constant connexion through

being alike the expressions, the manifestations, of the underlying ultimate Reality.

As regards the second part of his question, In what way must this ultimate reality be represented so as to make it possible that the changes in the apparently independent things shall signify something for these things themselves, shall be really alterations of their nature?—a question, I may observe, that runs quite counter to the answer given to the first part of the inquiry,—Lotze's reply is that we must represent the Infinite, the Absolute reality, as having the nature of a mind. Only in that kind of connexion which obtains among the parts of such a whole is there possible determination of the parts by the whole and at the same time real modification of the parts themselves.

I confess that I cannot work into an intelligible shape the portions of this answer, nor do I think that by its means Lotze really reaches what he is anxious to attain. It is easy to see that what he desires in the phrase 'that the modification shall signify something for the thing modified' would be attained if we represented the things as in their own nature psychical, as minds; for then the change might always be represented as presenting a twofold aspect. For an outer observer it would be an alteration in the appearance of the thing; for the thing itself it would be an inner experience, a change of its state, of which change it would be aware.

And, in fact, Lotze does at times express his final conception in some such way. Perhaps the thought is more intelligible to us in the cruder form in which Berkeley presented it. For Lotze so far agrees with the Berkeleian view that he refuses independent existence to any 'thing' that is not in its nature a mind: only in a mind is it possible, he thinks, to find that unity in the midst of difference which is required for reality, but which can never be claimed for so-called external things. Experience, therefore, would

consist of the modifications brought about in finite minds, in accordance with the general scheme or plan of operations of the Infinite mind.

This latter expression recalls the Berkeleian view. But Berkeley, as one knows, never faced the problem of the relation between the Infinite Spirit and the finite minds. His conception may not unjustly be described as a merely popular one. On the other hand, Lotze is fully aware of the difficulty involved in the conception of an Infinite Mind which coexists with finite minds. The finite centres of independent experience must, from his point of view, lose that independence which is at first assigned to them, for they too are manifestations of the Absolute; and that they should be in any connected relation with one another cannot be explained from Lotze's point of view, as it is from Berkeley's, by the thought of an operation directed on them from without, from the Infinite Mind which coexists with them. They are in connexion and undergo experiences only in so far as they are manifestations of the Infinite; and I know of no way by which to reconcile the two parts of this metaphysical conception—the independence which is required for the psychical nature of the parts, and the dependence, the submersion in the Infinite, which is necessary in order that they shall form parts of the total reality.

Nowhere in experience do we directly, immediately, apprehend anything as between the cause and effect which corresponds either to the relatively more simple notion of influence or to the more complex thought of necessary conjunction. The acceptance of this proposition does not require that we should make any absolute distinction between immediate perception taken as a simple process of mind and reflective thought. Under any view of what is contained in

perception it still remains true that what is aimed at by the metaphorical term 'the link between cause and effect' is not presented as one part of the material content, alongside of and different from the presented and distinguished cause and effect.

I desire, in saying this, to point to the necessity for rejecting a view which is suggested, perhaps naturally, as a way of accommodating the admission made to the recognised fact that, somehow, we do represent what are called the cause and effect — that is, the concrete facts, not the abstract notions—as in some peculiar and specific relation to one another. This must be allowed. No one doubts that, in our ordinary experience, we distinguish sequences and coexistences which we take to be causal from others which we characterise as casual. But nothing is gained by attempting to account for this admitted fact by postulating the introduction, from thought or elsewhere, of some addition to what is presented. There is an addition, though that term is a poor one to express the nature of the modification; but it is in vain that we attempt to account for that by calling in the activity of the relating understanding, and ascribing to it the function of imposing on the given material a form which corresponds to the connexion of cause and effect.

It would not, indeed, be fair to the Kantian doctrine to ascribe to it this crude method of getting over the difficulty brought forward by Hume. Kant's analysis of the matter goes much deeper. In his view the addition is not made in some incomprehensible way to the particular of connected experience. With regard to all the particular connexions that are called causal in our experience, Kant is ready to adopt the same position as Hume, and to maintain that our knowledge of such causal connexions, in the first place, is based only on experience, and, in the second place, contains no more than the representation of uniform constant con-

junction. But he insists that the simpler experiences, which consist in recognising objects at all, as in the relations of sequence or coexistence, are possible only for a subject who introduces into the given material of sense-presentation that form of relation which is necessary in order that he shall be aware of his own permanent identity in time. The thought of objective connexion, that is, of a necessary order of sequence in time, is part of the total experience wherein the distinction between subject and object is given.

Some measure of truth must be allowed to this way of representing the matter. There can be no doubt that part of any representation of an objective world is determined order of succession in that world as subject to time. But it is wholly unnecessary, and indeed impossible, to explain the primitive distinction between conscious subject and objective world by reference to some unique power with which the subject is endowed. In other words, so far as Kant's way of regarding the problem has truth in it, it is a description of the fact, not an explanation of it.

Returning now to the admission that, in our representation of cause and effect, or, rather, of events as in the relation of cause and effect, something is added to the given appearance, there need be no hesitation in describing the addition to, or modification of, the simple experience by the term 'thought.' In viewing presented changes as causally connected, we may legitimately be said to be thinking them, as contrasted with the mere passive perception of them. I do not imply that perceiving and thinking are ever wholly distinct and independent. I desire only to point to what seems to me part of the truth, that the one representation, the representation of changes as causally connected, is more complex and developed, and also more abstract and general, than the mere perceptive apprehension of their concrete features. It may very well be that in the simplest forms of what we call

perception, deeply imbedded in the primitive distinction between inner and outer, subjective and objective, there are the elementary components of that more developed thought which, when viewed abstractly, we call the notion of causal connexion.

It is not to be overlooked in dealing with the causal relation that it has reference primarily, if not exclusively, to that content of our apprehension which exhibits the characteristic features of space- and time-relations. It is, indeed, by reason of the presence of these as components of the given matter, that it becomes possible for us to make that distinction between things with causal relations to each other which seems so easy and is in truth so obscure. Such distinctions may have justification; but they must never be taken to exclude what we have seen to be involved in the very nature of time and space, namely, their continuity. Consider, for example (and it is the side that specially concerns the problem of causality), the implications of the continuity of time. We separate the things concerned in the causal connexion, and, on grounds of familiar experience placing the action of the one as antecedent to the action of the other, we tend further to separate this process from the things themselves. Yet evidently the continuity of time implies that what we here call a process shall itself be regarded as continuous, even in despite of the apparent discontinuity which qualitative change may force upon us. The separation is not of an absolute kind. The whole phenomenon which we separate into the two parts—a causal action on the one hand, a produced effect on the other—is one and continuous. The same consideration, too, must be applied to that which Kant was in the habit of calling the Causality of the cause. There also we must not forget that the continuity of time forbids

us ever to regard any such causality as an absolute beginning. The action of what is called the cause is itself, therefore, a part of the total process in time: not only ought we to say that every effect or change produced has a cause, but we must also say that every cause or producing change is itself an effect. It is the continuity of time, which is an essential part of a representation of a real objective world, that renders impossible an absolute beginning, and compels us therefore to conceive of causal connexions not as though they were isolated pairs of events or couples of conjoined things, but as in some way subordinate parts of the whole chain of process.

Turn now to the consideration of the space-element in our representation. There can be no doubt that upon it and its peculiarities we must base our explanation of the primitive form of that distinction which we make of things from one another. The things of the objective world, which we thus isolate and between which, as we think, the process of causation takes place, are always defined by differences of space. It may be, and it probably is, the case that into this there also enters the consideration which Kant emphasised, that only through contrast with the relative permanence of the space-occupying is it possible for us to apprehend the sequence of time; but it must be observed that, here again, what we call the continuity of space prevents us from ever regarding these so-called things, the subjects of temporal change, as being either absolutely independent of or absolutely separated from one another.

We must note also that the continuity of space and time is the real concrete equivalent for what is often designated by the more abstract term, 'the unity of the objective world.' Unity, it is obvious, has there no numerical significance, except, if one pleases, the negative. By unity is meant systematic connexion: everything which we separate in

thought or in perception is in fact and in truth connected and inter-dependent. The unity of the system has no other meaning than that we can proceed from element to element thereof in a perfectly continuous, regular, and intelligible fashion.

Thus it would appear that, in consequence of fundamental features of the real objective external world, the content at least of the thought of causal connexion must concern not relations between isolated parts, but certain aspects of the whole connected process.

What features of the total process constitute this content? Constancy of connexion is, undoubtedly, what is suggested to us by the first outside perceptive apprehension of the real world. But such constancy of connexion is there exhibited in a confused imperfect fashion, as repetition in time of a similar conjunction of concrete appearances; and we are bound to admit that, even if constancy of connexion be that which characterises the related parts in our conception of cause and effect, it cannot concern only those composite appearances, concrete facts, in regard to which our direct experience gives us only a slender amount of knowledge. These cannot themselves constitute elements of experience, of reality, with respect to which we can say that the constancy of their connexion is intelligible to us. Whatever may be the connexion in the long run between the causal conception and the thought of explanation, the relation of ground and consequent, there is no doubt that we may legitimately employ the latter as a clue to the former.

Thus the concrete appearances which are given in perception require to be resolved, brought back to the simpler components that are necessary for objective experience. Their constancy of conjunction may then become intelligible as itself following from or dependent on the connexions of what are really elementary. No doubt we are not entitled to

assume that this derivation has only one form, that it is simply the juxtaposition of the elementary components in one part of the process that constitutes the cause for a somewhat similar juxtaposition of partial effects in the total product. It is perfectly possible that the mode of combination may have many more subtle forms than that of mere addition. Nevertheless, in all cases we proceed on the general ground that that mode of procedure which constitutes the nature of the elements of reality will continue to make itself apparent in the more involved process into which it enters.

It will be observed that I say 'the mode of procedure which constitutes the nature of the elements.' It is a total mistake to separate the thing from what is called, in our ordinary speech, its action or way of operating. The thing is just what it does; its place in the universe of existence, its nature as a component thereof, is identical with the way in which it operates: there is no distinction between the two. Our distinction comes, as I said, from the tendency to separate these really inseparable components of the real external world—space and time. We continually tend to represent things as somehow the permanent bearers of attributes, and employ, in truth, in such thoughts only the space-image. We represent the thing as occupying its own portion of space, and therefore conceive of such effects as it may produce, or such effects as may be produced in it, as quite external to it; whereas in truth in so doing we are isolating one of the aspects of the whole thing. Its complete concrete nature is absolutely identical with the regular constant way in which it operates or changes in the content of the whole.

'Regular,' 'constant'; for it must be remembered that time is no agency; time produces no effects. Whatsoever, then, is the nature of the part of reality which we separate

off, is its constant permanent nature. It may be, indeed it generally is, impossible for us, in the complex of perceptive experience, to determine exactly what constitutes the elementary component; and our procedure, therefore, is always tentative; but it is a procedure under the influence of this guiding thought, and has, therefore, in the concrete, always before it the ideal of completed insight into the way in which each part of the whole operates in determining and being determined by the remainder. The thought of causal connexion, then, never has more in it than that of constant connexion, not constant connexion of event with event, thing with thing, but constant order or type of process. The world which we represent as a world causally interconnected is a systematic process; and such system means only that each part of the process has a constant uniform character.

I ask now, in the first place, what truth there is in that Kantian view of Causation which represents it as the content of a notion that is necessarily involved in the apprehension of objective reality. In some respects it appears as though this description did hit the mark; for it is hardly possible to form the representation of an objective world of materials under space and time conditions which does not involve the further feature of regular determination of order and constancy in the conjunction of its parts.

On the other hand one must always hesitate with respect to any view which seems to invert the natural order of development of our experience. The Kantian doctrine, both with respect to the notion of cause, and with respect to the more comprehensive conception of object, appears to place the abstract and generalised element of experience in the relation of priority to the concrete and particular. It seems to me doubtful whether it is possible to free the principle which Kant is applying—that of investigating the conditions

of the possibility of knowledge—from this erroneous implication. The conditions are taken from the developed form of apprehension; and, when stated as conditions of the possibility of apprehension, they seem to imply that, in some way, our concrete knowledge rests upon them as a foundation. Thus, for example, the whole function of understanding is defined by Kant as consisting essentially in supplementing the data of sense and imagination by the conception of the object, that is, of some determined rule of connexion in the otherwise arbitrary subjective play of perceptions and ideas. But while one would admit that this feature of determined order, as contrasted with the free play of ideas in the internal life of the subject, is characteristic of the object, one can admit neither that it is originally presented in abstract form, nor that it is added, from any such source as understanding, to the materials of perceptive experience. What comes first is the concrete; and the determined order, which first takes the place of object in the development of our apprehension, is in its primary form definitely specific connexion of the concrete factors of sense-perception. The object is, in the first instance, that determined independent connexion of things resisting our movement and having position relatively to one another and to us.

It may be said that in this there is implicit what is expressed explicitly in the conception of the object as such; but this relation of implicit and explicit must always be interpreted in the light of the actual processes of mind. The more abstract thought is not in any way present in that crude imperfect experience which we are in the habit of saying contains it implicitly. The explicit thought is a development that is reached from the simple experience, but not from that alone. No amount of merely dwelling upon the simpler experience would elicit, bring into explicit form,

what is said to be implied there. Our whole interpretation is but an instance of that constant prejudice which leads us to regard the developed experience as analytically brought forth from the more elementary.

In the same fashion one must insist that our simplest representation of a real world of process contains, not the abstract representation which Kant offers as the notion of Cause, but the concrete specimens of constancy of relation which in point of fact are necessary elements entering into any apprehension of the objective world. It will be said that the necessity that is here emphasised is of an altogether inferior order, that it is necessity of mere fact and not necessity of reason. I apprehend that, under any circumstances, there is no more stringent necessity than that of actual fact. It is the real structure of things that controls and lies at the foundation of what we oppose thereto as the necessities of our thinking; and I imagine that any theory which gives the prior place, as Kant's doctrine appears to do, to the necessities of thought, would find itself confronted with the same perplexing problem that Kant repeatedly has to face—the impossibility of finding any concrete material wherein these necessities of thought find a living sphere for themselves or to which they have application. Kant himself is always forward in enforcing the view that experience is contingent. It is contingent throughout: that it should be at all, is contingent; that it should be of this kind rather than that, is contingent; that sense should be adapted to understanding, is contingent. The only necessity that would be left by pursuing such a line of thought would be found to be the subjective necessity which Kant is so anxious to abjure, that which rests on the organisation of the mind, and which, therefore, is obviously itself but one specimen of the necessities of fact.

On this side, then, it must undoubtedly be maintained that

the Kantian theory, if not wholly erroneous, altogether exaggerates such share of truth as it possesses. The idea or conception of Causation is certainly based on that which forms an indispensable factor in the objective world as apprehended by us. The recognition of that factor is an indispensable step for any further development on either side—on the side of the objective world apprehended, on the side of the self-conscious subject apprehending. Only in this sense can it be said to be involved in the experience of an objective world, and to be therefore a universal and necessary condition of real experience.

Turn now to the representation of the causal connexion as bearing on orderly constant series of process in objective fact. Is it necessary or possible to go further? Is it necessary or possible to define more closely the relation in the process which is exhibited in the more concrete apprehensible form of constancy of sequence? We must admit—it is part of the view taken—that this term 'sequence' must always be qualified by a reference to the continuity of time, and that our representation of reality as containing a multiplicity of such sequences does not exclude but rather demands that further thought which is only given through the experience of space-connexion, namely, a coexisting manifold, wherein, therefore, every one part of the process must be represented as determined through its relations to the others.

We might readily accept, then, what has sometimes been called 'the identity of cause and effect'; for, when that expression is properly interpreted, it is but a way of stating the admitted impossibility of giving substantive and independent existence to the cause and effect: in other words, it only expresses the truth that what we represent in the causal notion is a continuous process wherein, it may be said, the cause passes into, is transformed into, the effect.

But the expression 'identity of cause and effect' has often been interpreted in a more concrete fashion, as implying what may be called qualitative identity on either side. Hegel, for example, who uses the expression 'identity' in reference to cause and effect, illustrates it by saying that the water in rain is just the water in the sky or clouds.[1]

The question can only be determined in a somewhat roundabout fashion, by asking in the first instance whether it is possible to find some general expression for what is called 'the action of the cause.' Consider, for example, the kind of answer that might be given to this question when its scope is restricted to the external world of space-related contents. On the surface the effects produced seem most heterogeneous; and a general expression for them was undoubtedly not discovered by the human mind until the advance of physical science had made it possible to effect a reduction of qualitative differences to quantitative antecedents. The expression which so far applies in common to all kinds of effects produced must obviously be highly general or abstract. We find it, in fact, in the notion the introduction of which has done more than anything else to systematise physical science—the notion of work done. The amount of resistance overcome is a perfectly common measure which may be applied to any so-called physical force; and, indeed, it gives us at once a method of overcoming or avoiding the ambiguities which attach to the notion of force. For just as cause and effect are only separated in our abstraction, and, in truth, name one and the same process looked at from two different points of view, so what we call 'force' is but an expression in short for the way in which actually, physically, the result is produced, that is, for the work done. The generalised expression may therefore be applied to all so-called forces; they are merely different ways in which, more exactly,

[1] [Hegel, Encycl., § 153.]

indeed, different rates at which, the result is produced, that is, work is done.

Now, no doubt, when we have reached this generalisation we have obtained a methodic principle by which to criticise the empirical generalisations as to constancy of connexion among concrete objects. We shall, for example, regard such empirical constancies as holding true in the fashion of general law if, and in so far as, they can be resolved into complex forms of this more general form of expression of the causal process. For the more general expression implies at the same time that we have reduced our represented processes to simpler, it may be to their simplest, elements; but I do not think that, on that account, we are entitled to maintain that this more generalised expression contains actually more than the representation of constant connexion in fact. I am unable, that is, to see that this generalised expression for mechanical connexion is a necessity of thought, something resembling an *a priori* truth or axiom. Such expressions may be axiomatic in that they represent what is at once the most comprehensive and the most simplified connexion in our experience; but the connexion—so it appears to me—is itself one of fact only, not of reason.

CHAPTER IV.

THOUGHT AND REALITY.

THE general representation of causal connexion, particularly in the form in which it finally presents itself, as that of an interconnected system where each part is at once determined and determining, has always been felt to constitute a turning-point in thought. The precise nature of the problem which this representation forces upon us is indeed variously conceived, and the turning-point or transition which is commonly recognised is not always defined with exclusive relation to that representation. In the Kantian Critique, for example, the turning-point is made to consist in the distinction between understanding and reason. Understanding, it is true, has, so to speak, terminated in just the representation which we have reached. The sphere of knowledge is conterminous with that of reciprocal determination.

On the other hand, what is called the higher unity of reason is brought forward with some abruptness in the Kantian work, where it would seem as though the function of reason consisted in giving, or trying to give, some supplementary representation which should at once do justice to, and at the same time go beyond, the representation of reciprocal determination.

To some extent, in the Critique, this advance is mediated by reference to the insolubility of questions which are inevit-

able if the category of reciprocal determination be extended, as it is taken for granted it may be extended, unconditionally. But it seems a fair interpretation of what really constitutes the nerve of the advance, that it lies in the recognised contrast between, on the one hand, the contents of that representation of reciprocal determination which, as Kant admits, finds verification only in the realm of external mechanical nature, and, on the other hand, thought, taken in either of the ways that are possible: that is to say, thought taken as a brief expression for the highly abstract connected system of contents constituting truth, or thought taken in the more concrete fashion as the expression for the inner life on its theoretical or practical or æsthetic side.

In either case there is recognised a difficulty—it may be an impossibility—in the way of bringing what is characteristic of thought within the scope of the category of mechanism, reciprocal determination. Thus, for example, in the system of thought-contents we have relations, such as those of universal and particular, of ground and consequent, which are not only timeless, in the sense that the order of temporal change is wholly excluded from them, but which seem even to lie outside of the scope of that all-comprehensive determination of reality, Change. Nothing seems more characteristic of the thought-contents than their simple changeless identity. Even such connexion as we call 'reason and consequent' is deemed by us compatible with the identity of the related thought-contents, and seems to involve nothing in any way resembling real process. Briefly, this is the contrast between truth and fact, validity and actual existence.

On the other hand, a very similar contrast makes itself apparent when thought is interpreted in the more concrete fashion as the subjective experience constituting mind. There is no possibility of bringing that subjective life

directly within the range of the category of reciprocal determination. The more closely we inspect the character of that mental or subjective existence, the more difficult, perhaps impossible, do we find it to accept the first rough generalisations as to orderly sequence in the way required in order to bring them legitimately within the notion of causation. It is a difficulty that is double-sided. It is not merely that when we, perhaps illegitimately, confront the two realms —mechanical external nature and the inner life—as alike possessing substantive existence, we find it impossible to represent their interrelation as but a type of that which constitutes the whole scheme of reciprocal determination. But, when we limit our view to the subjective life itself, we find it impossible to regard its successive or coexistent factors as holding with respect to one another the specific relation that is required for causation in the external world.

It is worth noting that, with more clear recognition of the underlying ground for the transition, the same elements are to be detected in what constitutes a most instructive section in Hegel's Logic.[1] Hegel effects the transition from what he called the sphere of essence to the sphere of the notion by emphasising the inadequacy of the thought of reciprocity; and the complement, that which gives, in Hegel's language, the truth of reciprocity, is the notion, that is, the representation of reality in and through the related factors of universal, particular, and individual which come forward in the several forms of notion, judgment, and reasoning.

I suppose that one may take this as meaning pretty much what was referred to as the first aspect of thought, in which contrast to the mechanism of nature was discernible; for it may be said that in these terms, universal, particular, and individual, we have what indeed corresponds to something

[1] [Encycl., §§ 154-60.]

in the thought of mechanism, but is not identical with it. That the universal is involved in each individual thing, that the individual existent is intelligible only as a universal that is particularised—this appears to give a new and higher form of being to that which in external mechanism tends to be conceived as losing all independence. In mechanism its unity is, as it were, lost; it functions merely as one necessitated part in a whole that is otherwise external to it; whereas here, when represented as that in which a universal nature is embodied and particularised, it is at least conceived of as expressing in its mode of being and behaving a nature that is its own. It has a certain independence, and therewith that freedom which seemed to be abolished in the mechanism of nature. The freedom, it is to be noted, is only that of acting out its own nature. It is in no sense contingency, and such freedom is not an addition to, or something in conflict with, the mechanism of reciprocity: it is only possible through that. An individual can only act, can only express his own nature, in a system which is related according to the fashion of reciprocal determination.

There can be no doubt that Hegel connects this with the essential, fundamental position of the Kantian Critique. It is, therefore, with thought that he is dealing, thought as directed upon, and therefore in some way distinct from, the mechanism of external nature; and I should be inclined therefore to say that, in Hegel's mode of handling the transition, we have also recognition of the truth that the pressure of the problem becomes apparent just when we confront with one another thought and mechanical or abstract nature. All the so-called 'higher' categories (=the Ideas of Reason) have their significance only in reference to this fundamental question of the relation of thought to external nature.

Before proceeding directly to this question, I wish first to get rid of a minor difficulty that has sometimes seemed to

attach to the notion of reciprocity. Taken abstractly, it is the representation of a systematic whole in which each part is determining and determined; and it has sometimes seemed as though this notion involved one in the necessity of somehow passing beyond the systematic connexion and interpreting it as the manifestation of something which is therefore, possibly, not itself to be conceived by the help of the same notion.

This difficulty arises from the consideration of each part of the whole as at once determining and determined. It is impossible to interpret this as meaning that each part, possessing its own independent nature, acts in accordance therewith and is acted upon by others; for the nature of the part is nothing but the determined process which we resolve into these two general factors—acting and being acted upon. It would appear then as though, by insisting too exclusively on one side of the notion of reciprocal determination, we were reducing the world of reality to a kind of changeless whole in which, so to speak, each activity is neutralised by the others. But this is because we have allowed to drop for the moment the fundamental characteristic of all that is real, namely, that it is a process. In the same way, the term 'whole,' which we apply all too recklessly, has a misleading tendency by inducing us easily either to represent the whole as somehow distinct from the manifestation of itself, or to regard the reciprocal relations of the parts as veritably rendering all change impossible.

The problem we are dealing with has two main aspects, both long familiar. The first, the more abstract, concerns the relation, as one must call it, between the forms of intellectual construction making up the apprehension of truth, and the more concrete fact. The other, more special, more immediately concerning psychology, has to do with the rela-

tion in which we must think the two sides of our experience —the material or mechanical and the psychical or inner.

I take it that, in the long run, the questions which arise on these two lines are fundamentally the same. I propose to start with the more special of them, that which concerns the relation of the mechanical and psychical.

Our first crude representation of the relation, as we call it, is doubtless based on the familiar experiences of sensation and voluntary activity. In the former a process of the mechanical kind appears as the condition, and we hardly hesitate to go further and describe it as the cause, of that change in the inner life, the sensation. In volition, with almost equal directness, an inner state presents itself as the condition or cause of some change in outer events. The conjunction in both cases, moreover, seems to have the regularity which we accept as an empirical indication of a real connexion. Closer analysis, no doubt, is sufficient to show us that our first representation is a very imperfect statement of the total experience. It unduly simplifies what occurs; it selects what are at best portions of a somewhat involved process, and places these fragments of the whole in a direct and simple relation to one another. Even inner analysis is sufficient to make clear this defect as regards the second typical example, while it is only objective research that makes clear the corresponding complexity in the other case. Even, however, when our analysis is carried out to the extent of effecting a more detailed representation of the process, we continue to retain our first interpretation and apply the thought of causal relation to facts which so far continue to be represented as isolated, and, therefore, relatively independent.

Nor is it possible, on the basis of this first representation, to proceed on the same lines as we follow in dealing with the mechanism of nature; that is to say, we find ourselves

unable to modify to the same extent the impression of independence which the related facts make upon us. The ground for this is the obvious and familiar disparity, incomparability, of the facts which we are bringing into the special relation with one another. If we do give up the independence, while still retaining our first expression, the new thought, which takes the place of the more simple idea we first employed, is that of the connected whole of mechanical nature as influencing, giving rise to changes in, the connected whole of the psychical experiences of a subject soul or mind.

But, if we thus assign the two connected facts each to its appropriate realm, we only make more definite that feature of disparity which first casts a shadow of doubt on the legitimacy of the notion we apply to the whole experience. For certainly, in the mechanism of nature, the parts of the process are so connected with the whole that it is impossible for us to represent what is called the 'mechanical cause' as veritably giving rise to an effect which, as we must express it, lies outside of the chain of mechanical process. The more definitely we insist that, in the mechanism of nature, the effect shall be the measure of the cause, and the more we recognise that within the mechanical a quantitative relation obtains between the parts of the process we call cause and effect, the less is it possible for us to represent as an effect of a mechanical cause that which, from its wholly incomparable nature, seems to be outside of the mechanical as a whole.

On the other hand, it is undoubtedly much less easy to form any detailed representation of that counter-whole to which the isolated effects or causes of a psychical kind are referred. We do not find in that realm the means of connecting the parts with the whole, so readily, at all events, as we do in the case of the mechanism of nature. For it is in vain, I think, to appeal, as Lotze appears to do, to the

unity of the conscious subject as that which constitutes the whole, and therefore enables the parts to be related together, and so to make up a system having the same kind of finality and completeness as we ascribe to the mechanism of nature. The unity of self-consciousness in the abstract presents itself as rather a result attained than a primitive fact which can be utilised as ground of explanation for the connexion of the parts of the inner life. Even the more concrete unity of the inner life presents the aspect of a product, and appears itself to be a consequence of the way in which the parts are connected with one another rather than an efficient agent which controls and determines their relation.

The perplexity into which we are led when we have confronted the two connected systems in this way has called forth more than one metaphysical theory. I will not at present say more of the earlier form of the most suggestive of these theories—the Occasionalist—than that it depends too much on the supposed isolation and completeness of the two systems of fact which it brings into a kind of artificial relation. Perhaps under no form of the Occasionalist theory is it really possible to do more than transfer the difficulty from one quarter to another. We can hardly tolerate the suspension of the two systems represented as though each somehow existed, and did in some way connect with the other. We insist that somewhere a ground shall be offered for the remarkable correspondence which obtains between them. If, as is customary in such theories, the ground be represented as the Absolute, conceived in any one of the ways possible, the result is merely to transfer the difficulty, which we find insoluble in the realm of experience, into the Absolute itself: which, doubtless, from its absoluteness, is adequate to the reconciliation of any differences.

Occasionalism, in the more refined form, presents itself as

the theory of a certain parallelism between the physical and the mental. Psycho-physical Parallelism is the technical name for the general representation of the two processes—the change in external fact, and the psychical, the change of mental state—as arising side by side. Such a conception is an improvement on the cruder form of Occasionalism only if it be supplemented by some hypothesis which brings together into one systematic whole what are otherwise conceived as wholly independent. According to a recent statement:—

> Both must be regarded as belonging to a more comprehensive system of conditions; and it is within this system as a whole that the reason of their connexion is to be sought. . . . We have yet to consider the relation of the immaterial system as a whole to the material system as a whole. If this relation be regarded as one of mere parallelism or concomitance, the fundamental difficulty, so far from being removed, is aggravated. . . . The explanation . . . is ultimately based on an idealistic view of material phenomena. The sensible qualities of matter exist only for minds which have certain experiences in the way of sensation. . . . Matter . . . is essentially a phenomenon; and *phenomenon* means simply *appearance* or *presentation*. There can be no appearance or presentation apart from a subject to which an object appears or is presented. Hence the nature of matter as known is constituted by its being known or at least knowable. On the other hand, it is equally certain that the *existence* of what is known to us as matter does not depend on our knowledge of it. . . . Only its appearance as material phenomenon is dependent on us. Hence it follows that, so far as it exists independently of its presentation to a cognitive subject, it cannot have material properties such as extension, hardness, colour, weight, and the like. It is an agency which is an essential condition of material phenomena, but is not itself a material phenomenon. . . . The world of material phenomena presupposes a system of immaterial agency. . . . To it, in some way, the sensational experiences are due which form the basis of our knowledge of the material world. It is on it the individual consciousness acts when it produces changes in the

material world. . . . There are varying views as to the nature of the system of immaterial ageney. . . . One thing seems clear, —that we are nearer the truth in speaking of it as consciousness than in speaking of it as matter.[1]

The turning-point of this explanation is evidently the doctrine which recalls the Kantian view that all the characteristies which make up the nature of the mechanical, the material, are subjective: that they are, at all events, conditioned by, dependent on, presenee of the apprehending subject. But this 'dependence on' evidently cannot be interpreted as implying that it is the subject which *adds* thesc characteristics to whatsoever constitutes the core of existence in the material: they are in no sense deducible from the nature of the apprehending subjeet; and it must be maintained, therefore, that this kind of dependence, which is involved in the process of sense-apprehension, is perfectly compatible with the assignment to the real factors of the mechanieal attributes which still stand in a wholly incomparable relation to our subjective experiencces. It is evidently a hypothesis for which no definite grounds ean be offered, that this real eore of existenee, admitted as a factor in the presentation of the material, is of the nature of consciousness. One would rather say that the line of argument pursued must lead, as with Kant, to the description of this agency as the thing-in-itself, totally devoid of character, and with regard to which, as we already know, Kant himself expressed the opinion that it might, for anything we could tell, be the identical basis of both external and internal. It plays the same part that the Absolute had to discharge in

[1] Stout, Manual of Psychology (1898), pp. 52-4. [In the 2nd edition (1901), p. 55, the last sentence of the quotation is omitted, and the following sentence substituted for it: "In any case, the student should guard against the assumption that the immaterial system is a sort of repetition of the material system, involving the same sort of interactions, and similar distinctions and relations of its parts."]

the theory of Occasionalism. An exit in that way, then, seems for ever to be barred.

The reference to a substratum, which may be in a way represented as in itself devoid of those properties which characterise external nature for sense, evidently implies, on the one hand, what is peculiar to Subjective Idealism; while, on the other hand, it raises the difficult problem, How are we to conceive the relation between what is taken to exist in itself and its manifestations? This problem is identical with that left for later philosophy by Kant's view of the thing-in-itself. With respect to it, I think we are bound to say that the implied distinction is wrongly represented. What really seems to be involved is the extent to which our experience enables us to determine, in a completely satisfactory manner, the nature of the object we seek to know. Appearance, in other words, is wrongly regarded as an existent somehow related to the real of which it is the appearance. More truly interpreted, the term signifies the imperfection of our knowledge of that which we may have adequate grounds for describing as reality. The ultimate distinction which, on the one view, must needs be represented as a relation of final difference between the real and its appearance would, on the other interpretation, depend on the answer given to the question, Is it possible that in knowledge we should completely determine the nature of reality? Such an interpretation might indeed be held to be implied in Kant's more cautious way of defining the conception of thing-in-itself as the indication of a limit; and his departure from it is ultimately a consequence of the preponderance in his theory of knowledge of the view we have called Subjective Idealism. For Kant invariably tends to interpose the presentations of sense in their orderly arrangement between the thinking subject and the world of things-in-themselves; and therefore his criticism of this interposed realm, his final

judgment on it as appearance only, is based on the reflexion that such presentations, however orderly their arrangement, however objective they may seem, are nevertheless nothing but states of mind.

In this, it appears to me, Kant is doing what, from the nature of the case, it is always easy to do—giving a kind of substantive existence to the contents of thought, which again has to be recalled when it is remembered that, after all, the contents are only of thought and therefore subjective.

Perhaps when the question is put in its true form, as concerning the limitation of our knowledge, there is a further confusion introduced which attaches proximately to the term or notion of the whole. In the long run, it may be seen that the limitation of knowledge, which for the moment I assume hypothetically, is a result of the position of the thinking mind as part of the total process to which we give the name 'reality.' So to define the position of mind brings before us at once the perplexity involved in the notion of the whole; for it appears as though, in representing mind, the finite subject, as part of the whole, we are compelled to assume that in some way the whole is capable of being an object of determinate representation for the thinking mind. It is perfectly evident that any such representation implies a conflict with the very significance of the notion we are dealing with, the notion of the whole; and that, if to regard reality as a whole means to be able to represent reality as object of our thought, the perplexity is irreducible. It may be that we are giving a most imperfect interpretation of the term 'whole' when we thus apply it, and that, as in the analogous case—that in which we speak of nature as one—our meaning is but imperfectly conveyed by the predicate we have selected. The unity of nature is not identical with numerical singleness; for that is meaningless without the representation of numerical

plurality. It indicates, as we saw, no more than systematic connexion: that nowhere throughout nature are we presented with an absolute difference, an impossibility of connecting part with part of our experience.

In the same way to designate reality as a whole must mean, not that reality is ever given in or to our thought as made up of a number of parts all of which in their connexion are before us, but that, throughout our whole experience, nothing is or can be given which is without intelligible connexion, which is incapable of being worked into a systematic form—that which we call truly a *whole* of experience. Whether our experience contains such a systematic representation is a question of fact, not to be settled on any *a priori* grounds.

There is always an attraction in trying to find a meaning in a theory, even if that meaning be not obviously the purport of the theory as first advanced. For example, in the whole doctrine of Occasionalism, as it was at first propounded, the emphasis is laid on the wholly disparate character of the two facts which are brought into relation through an external ground. In that form, as we saw, no satisfaction is to be obtained from the theory: nothing is gained by referring to this external ground. Yet the meaning of that reference may be otherwise interpreted. It might be regarded as a way of expressing the correlative of the more obvious thought of the difference between mind and body: namely, the correlative supplementary thought that such difference nevertheless is not absolute, that the two form parts of one and the same system,—not independent in their mode of existing, though qualitatively distinct, independent in their nature.

'Qualitatively distinct,' we say. Now the term 'quality' at once suggests a question with regard to that representa-

tion of external nature which is of greatest importance in the discussion of our problem. The mechanical view, by its very essence, excludes all reference to the qualitative. Its connexions are all quantitative; and we saw that, in one view, the causal relation was interpreted as quantitative identity.

Nevertheless, it is perfectly obvious that, the more we emphasise the quantitative aspect of the mechanical, the more we abstract from the positive features of reality, the less adequate do we make our scheme of mechanism to express the whole fact which we have before us in the experience of external nature. We cannot simply identify external nature with the abstract scheme of quantitative relations. They at best can be but the description of the form of reality.

Again, it is a natural assumption that, with respect to such quantitative relations, final intelligibility shall present itself in the way we generally associate with the process of formal inference: it is assumed that, in the realm of mechanism, we shall be able to understand consequences analytically from their antecedents. The quantitative identity expressed, for example, in the mechanical axioms seems to support this assumption. Yet it is an assumption for which there is no justification, an assumption which is incapable of holding its ground when confronted with the very simple facts of advancing knowledge. We can give no meaning to 'analytical' except that which Kant assigned to it, that from the given notion we are able to extract what is called its consequence. Unless, therefore, we insist that the notion shall never be held to be given until our knowledge of the consequences has been completely unfolded, we must insist that those who adopt this view with respect to the principles of mechanical explanation must find themselves wholly unable to make clear why it was that to gain

insight into these mechanical principles required centuries of experience and reflexion. It is always easy, after the general relation has been determined, to suppose that whoever was in possession of clear ideas of the antecedent members must inevitably, analytically, advance to the subsequent. But even were this the case, it would be possible only because the relation has been already determined, and is latent or implicit in the isolated representation we may make of any one part of it.

In connexion with this, it has also to be borne in mind that external nature, the mechanism of which we define through perfectly general laws, comes before us in anything but the aspect of such an abstract arrangement of defined relations. The logician has always to point out that, in respect to the concrete phenomena, there is a remainder, a residuum, which, no doubt, in accordance with his methodical maxim, he is bound to treat as reducible, but which may in the long run be empirically irreducible.

In logical treatment this generally appears in the form of a distinction between relations of causation and collocations. Nature, as it were, when taken in each of the threads of process, displays to us the regularity and order which we sum up in the causal relation. But, in the manner in which these threads are woven together, there is a factor less manageable. This factor is not to be called ultimately irreducible, for so to determine it would imply a comprehension which goes quite beyond experience. But, so far as experience goes, so far as we can represent to ourselves any state of concrete fact, we may be compelled to regard it as practically irreducible, a *datum*. It is always necessary to keep in view this distinction, for we are over-apt to represent the infinitely concrete whole of natural process in the light of the abstractions which are legitimate and necessary for scientific explanation. There are in the

concrete no existents corresponding to the abstractions of mechanical science. It is wholly impossible to think of the concrete whole as being broken up in the way which would make it correspond to the abstract laws of scientific explanation.

Consideration of this point I regard as enforcing the general interpretation offered of the content of the causal notion. We saw that in that notion no more was expressed than the regularity of conjunction in the parts of natural process; and the limit which we imposed on it, the limit to external nature, to space and time, seemed, so far, extraneous to the nature of the notion itself.

The Occasionalist doctrine, that of Parallelism, and the popular way of representing the relation between body and mind seem alike in one respect. They accord a kind of independence either to the separate occurrences of the mental life or to some hypothetical substantive unity underlying these occurrences. The difficulties which they encounter are largely consequences of this initial assumption—an assumption which, as thus expressed, can hardly be regarded as beyond question. The very term 'independence' seems to suggest a separation which no after-ingenuity can remove, a severing of reality into two wholly distinct parts. And I doubt whether anything is gained by following a line, suggested at least by Mr Bradley[1]—that of doubling, so to speak, the antecedent and consequent in each case. For not only does this suggested solution still carry with it by implication the independence of two kinds of event; but, if we follow it out, we find undoubtedly a formidable difficulty at that point which must be named the 'origin of psychical life.'

The independence represented in this way, then, seems to constitute a final obstacle to any intelligible explanation of

[1] Appearance and Reality, p. 334 f.

the combination in experience of the inner and outer, psychical and corporeal. It must, therefore, be considered whether the relation really involves any such independence, whether we are not exaggerating a partial truth in representing body and mind as two series of events, two distinct realms of existence, which come somehow into combination. Certainly our general methodical maxim, nowhere to admit in reality an absolute division, would lead us in the contrary direction. Whatever independence they appear to possess must not be absolute. Both must be capable of representation as forming parts of one and the same process of actual existence. Even on humbler grounds we should be compelled to qualify the assertion of independence. It would be doing injustice to even the crudest experience we possess to overlook altogether the evidences of a kind of dependence which it contains. Nowhere do we find psychical life save in conjunction with highly complex forms of that external reality which we represent to ourselves as under mechanical law. Nowhere in the inner life itself do we find evidence of an activity which introduces itself into the mechanism of external fact and must be reckoned with as an independent factor. On the contrary, all the evidence we have from experience would tend to compel us to represent the psychical as in the closest dependence on certain forms of change in the mechanical. It is undoubtedly true that we cannot represent to ourselves the psychical as itself a change of the mechanical kind; but it is a question which psychology has hardly ever raised, whether we do apprehend the psychical as a series of distinct events, whether the mode of describing the mental life which gives it the position in our consciousness of a realm of existence distinct from and, as one puts it metaphorically, outside of the mechanical, is not a misreading of the actual nature of the inner life itself.

The problem thus suggested has sometimes been seen to have significance. It has been noted by many psychologists

that the description of the mental life as object of the inner sense is inadequate; and the inadequacy does not depend on the lack of evidence for the existence of any organ of apprehension which could be called inner sense, but is due to the fact that the conception inevitably introduced is fatally defective. It leaves untouched the very essence of the matter: the fact that the very process called 'apprehension by the inner sense' is more than a part, is the very foundation, of the inner life itself; and when we speak of representing to ourselves processes and activities of mind, we must remember that we have not before us the apprehension of anything that has an objective aspect. What occurs in all such cases is the revival in present consciousness of modes of apprehension which we now connect with past time.

If now, following out this suggestion, we try to name for ourselves what constitutes the generic character of the inner life, we find ourselves compelled to describe it as an immediate experience of, or relative to, that which we call the mechanical. Is it, then, impossible to regard such immediate experience as the form which the real process of existence takes under certain combinations describable by us as mechanical? In other words, are we compelled to make an absolute distinction between the mode or process of change of a highly complex configuration of the external, and that immediate experience which constitutes a mode or state of consciousness? Certainly, we cannot represent the said configuration simultaneously with the mode of consciousness; it is not part of its content, and could not be part of its content. Nor can we say it is ever necessary that we should be able to describe the qualitative peculiarity of this mode of consciousness in terms of the mechanical arrangement of what is external. The comprehensive representation of mechanism, as I said, makes abstraction from all that is qualitative; and, in fact, our natural tendency, when we give exclusive prominence to the mechanical, when we regard it, illegitimately,

as self-explaining and independent, is to assign all qualitative difference to consciousness—a position which has only the difficulty that it leads us too easily to overlook the consideration that such qualitative differences must needs have something corresponding to them in the special combination of reality within the world of mechanism. No doubt, there will always remain an uneasy feeling which expresses our habitual desire to understand analytically, to see, as it were, the new process coming about through the mere putting together of what is already of necessity part of the process itself. But such analytical comprehension of reality we do not possess. Our understanding of it never proceeds from a single principle out of which, it may be supposed, we can extract, without appeal to other source, the consequences which make up the detail of reality.

There seems, then, nothing to contradict the general determination of real existence at which we have arrived — the supposition that, in the process of change, a certain configuration has this character of inner reference which constitutes the fundamental feature of psychical existence. The change of bodily process will always remain part of the mechanism of nature, and form one link in the chain which we explain by reference to mechanical laws. But let it be borne in mind that this mechanism of nature is not known to us as a completed whole. These very mechanical laws are no results which we can deduce analytically from the conception of external nature itself. In the long run they are only known to us as the most general conditions under which the process displays itself in our experience.

Now, from this point we may try to give an answer to a question of a more abstract kind, which has been so far involved in all the preceding investigations. The antithesis of Truth and Fact is that which most readily brings forward the question. Psychologically the same antithesis has been

fixed in the terms 'thought' and 'perception'; and, on the psychological side, it is sufficiently easy to see that the antithesis is far from absolute, that perceiving and thinking name only stages which find their natural place and explanation in the development of the inner life. In function they may very well be distinguished; in psychical composition or structure they are fundamentally identical; and the difference is, in the long run, expressible as one of degree, or of the conditions under which the operations are carried on.

It is harder to deal with the antithesis expressed objectively. The order of fact is throughout one of change, with its component factors of space and time. In the order of thought, on the other hand, abstraction is made of time at least, perhaps even of change. The contents of conceptions which appear, for example, in judgments are just the types for us of the unchangeable. The relations which characterise for us the order of fact are the relatively external relations of sequence and coexistence. The relations in the order of thought we can name but imperfectly. Let us take as summarising them that of logical dependence. It is probably, indeed, with reference to this last term, that the difficulties of preserving the antithesis begin to show themselves, for we can only give to logical dependence an analytic significance. Historically it was this consideration that led Kant to a fresh attempt to define the relations between perceiving and thinking, an attempt which failed only because the reconciliation, in his hands, took the form of an almost exclusive predominance of thought.

The abstract relation of dependence, then, is not *per se* an independent portion of our experience; nor can we in any way bring together, into living organic connexion, the abstract character of thought and the supposed concrete character of perceptions. Only in so far as the abstract order of thought is but a development of that which is involved in the rela-

tively simple perceptions, can it have significance for our knowledge, can it involve anything of the kind Kant named 'synthetic connexion.' When we oppose fact and truth, we select for our example of fact some isolated portion of the possible realm of perceived fact, and we overlook the consideration that the antithesis arises, not from any opposition between fact and truth, but from the opposition between a disconnected isolated portion and a connected systematised whole. It would follow that what we are in the habit of calling the logical form of our thoughts, those distinctions which appear in 'universal' 'particular' and 'individual,' in judgment and syllogism, have not, as such, anything corresponding to them in the realm of reality. They are only the ways in which the conjoining and separating function of thought works upon the material of perception, and there correspond to them really only those constancies of conjunction in the material of experience which constitute what we call the laws of real fact. In the long run, the basis of all logical necessity is the necessity of fact; and the abstraction from the circumstance of time, which seems to be peculiar to thinking, is not its special privilege. It attaches to thinking only because it is the universal feature of all conscious apprehension. The discrimination of content from reality no doubt comes most clearly to the front in what we call thinking; but it is involved in the very simplest process of apprehension.

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